WEEKLY WEATHER REPORT.

1879.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

LONDON:
PRINTED FOR HER MAJESTY'S STATIONERY OFFICE;
AND PUBLISHED BY
J. D. POTTER, 31, POULTRY, AND 11, KING STREET, TOWER HILL;
AND E. STANFORD, CHARING CROSS.

WEEKLY WEATHER REPORT, 1879.

REPORTS RECEIVED TOO LATE FOR INSERTION IN THEIR PROPER PLACES.

No. of Report.	For Week ending	Names of Stations.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	Rainfall. No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
			°	°	°	°		Inches.	Inches.
1	January 6	Plymouth	53	30	42·7	−1·4	5	2·89	+1·89
2	„ 13	Plymouth	50	18	33·4	−9·6	4	0·87	−0·30
3	„ 20	Plymouth	51	34	41·8	−0·9	5	1·68	+0·52
4	„ 27	Shrewsbury [M]	35	20	28·3	−11·7	0	—	?
5	February 3	Shrewsbury [M]	35	25	30·5	−9·9	2	0·35	?
7	„ 17	Dunfanaghy	44	33	39·4	−1·8	4	0·81	?
10	March 10	Barnstaple	59	30	45·3	+1·5	3	0·14	−0·46
12	„ 24	Barnstaple	62	32	45·8	+1·1	2	0·07	−0·48
15	April 14	Sumburgh Head	45	30	39·1	−3·1	3	0·10	−0·32
16	„ 21	Sumburgh Head	46	31	38·5	−4·6	3	0·06	−0·38
17	„ 28	Sumburgh Head	46	30	38·5	−5·6	3	0·07	−0·36
18	May 5	Sumburgh Head	52	33	42·8	−2·4	3	0·31	−0·08
19	„ 12	Sumburgh Head	49	29	38·6	−7·6	7	0·54	+0·21
20	„ 19	Sumburgh Head	52	35	43·7	−3·5	1	0·02	−0·28
21	„ 26	Sumburgh Head	53	36	44·7	−3·5	6	0·63	+0·30
22	June 2	Sumburgh Head	59	38	46·8	−2·5	4	0·66	+0·36
24	„ 16	Barnstaple	71	50	61·0	+1·6	6	1·49	+1·03
25	„ 23	Barnstaple	70	52	61·5	+1·1	4	0·31	−0·17
27	July 7	Barnstaple	71	51	59·4	−2·6	6	1·10	+0·47
29	„ 21	Barnstaple	75	52	60·7	−2·2	5	1·18	+0·44
„	„ „	Kingstown	63	49	56·5	−4·1	5	0·83	+0·37
„	„ „	Parsonstown	70	46	57·7	−3·1	5	0·66	0·00
31	August 4	Hereford [M]	75	46	61·6	−1·1	5	0·80	+0·29
„	„ „	Strathfield Turgiss [M]	80	55	64·7	+0·7	4	2·21	+1·77
32	„ 11	Hereford [M]	70	42	57·1	−5·1	2	0·44	−0·15
„	„ „	Strathfield Turgiss [M]	71	44	59·3	−4·7	0	—	−0·39
„	„ „	Barnstaple	70	54	61·7	−0·5	5	0·88	+0·08
33	„ 18	Hereford [M]	76	51	62·8	+0·9	2	0·31	−0·15
„	„ „	Barnstaple	77	54	66·1	+4·4	3	0·91	+0·11
34	„ 25	Hereford [M]	71	45	59·2	−2·1	6	0·92	+0·43
„	„ „	Barnstaple	73	45	62·1	+1·1	6	1·53	+0·71
35	September 1	Kelstern (Lincolnshire) [M]	65	39	55·3	−4·4	5	1·07	+0·52
„	„ „	Barnstaple	67	40	59·0	−1·6	3	1·26	+0·38
36	„ 8	Cirencester	67	40	54·3	−6·1	2	0·54	−0·23
37	„ 15	Barnstaple	67	52	58·5	−0·7	5	0·96	−0·08
38	„ 22	Barnstaple	70	49	60·4	+2·2	4	0·46	−0·63
39	„ 29	Barnstaple	65	47	56·4	−0·7	5	0·82	−0·31
40	October 6	Brookeborough	62	39	49·1	−2·7	3	0·86	?
41	„ 13	Laudale (Loch Sunart)	58	36	53·0	+4·2	4	0·29	?
42	„ 20	Laudale (Loch Sunart)	56	36	48·6	+1·2	5	1·72	?
43	„ 27	Hastings	57	39	50·1	−1·1	4	0·40	−0·34
„	„ „	Barnstaple	60	47	53·6	+2·3	5	0·70	−0·51
44	November 3	Plymouth	56	33	46·9	−3·9	1	0·05	−0·77
„	„ „	Brookeborough	54	28	43·2	−3·0	0	—	?
45	„ 10	Kelstern (Lincolnshire) [M]	56	35	43·6	+0·4	1	0·02	−0·53
47	„ 24	Kelstern (Lincolnshire) [M]	52	25	35·7	−6·0	6	0·88	+0·39
„	„ „	Plymouth	57	30	41·7	−4·4	3	0·46	−0·32
48	December 1	Kelstern (Lincolnshire) [M]	41	22	32·9	−7·9	5	0·68	+0·24
49	„ 8	Foynes	44	20	32·5	−10·8	2	0·13	?
52	„ 29	Leicester	55	25	37·3	−3·0	4	0·23	−0·33

Q 581. 150.—8/80. Wt. 13666. E. & S.

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VOL. II. No. 1.] WEEK ENDING MONDAY, JANUARY 6, 1879. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	51	12	32	7 below.	3	4	1 less.
	2. ENGLAND, NORTH-EAST	51	19	35	4 below.	1	1	5 less.
	3. ENGLAND, EAST	59	14	34	5 below.	4	11	4 more.
	4. MIDLAND COUNTIES	61	11	34	6 below.	4	9	6 more.
	5. ENGLAND, SOUTH	57	18	38	2 below.	4	22	14 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	50	22	35	5 below.	2	2	8 less.
	7. ENGLAND, NORTH-WEST	52	17	35	6 below.	3	2	6 less.
	8. ENGLAND, SOUTH-WEST	53	30	43	2 below.	5	26	20 more.
	9. IRELAND, NORTH	50	25	36	5 below.	4	5	2 less.
	10. IRELAND, SOUTH	54	20	38	4 below.	4	9	1 less.

General Remarks.

Weather extremely changeable; generally mild and damp at the commencement of the week, but much colder and drier afterwards. Temperature again showing very great extremes; the maxima as high as 61° at Loughborough and 59° in some other parts of England on the 31st December, and even the minima for that night as high as 50° at some English stations. A general fall occurred subsequently, so that by the end of the week the minimum thermometer registered lower than 15° over the midland and eastern counties and below 20° even in the south. The average for the week below the mean in almost all places, the deficit being greatest in the north and least in the south.

Rainfall less than the mean in Scotland, Ireland, and the north of England, but very much more in the south of England, the excess being most considerable in the south-western districts, where several heavy falls are reported. Snow very frequent in the north.

Wind strong to a gale from the south-westward at the commencement of the week, then veering to N.W. and falling light or moderate; strong S.E. winds set in over the south-western districts at the close of the week, and increased to a gale at the extreme south-western stations.

The data from which the summary on the preceding page has been calculated are as follow:—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	44	?20	31·5	− 7·6	?2	?0·44	−0·06
	Aberdeen	45	12	32·0	− 6·3	6	0·73	+0·08
	Glenalmond	45	13	30·6	− 8·1	1	0·24	?
	Leith	51	24	34·4	− 4·3	3	0·09	−0·33
2. ENGLAND, N.E.	Shields	51	26	35·1	− 3·5	1	0·02	−0·52
	Durham	50	23	34·7	− 4·1	1	0·10	−0·53
	Scarborough	51	28	36·5	− 2·0	1	0·04	−0·56
	York	50	19	34·3	− 4·5	1	0·08	−0·44
	Kelstern (Lincolnshire) ℳ	51	19	33·2	− 5·4	3	0·22	−0·19
3. ENGLAND, E.	Yarmouth	53	25	35·5	− 3·3	5	0·71	+0·02
	Cambridge	59	18	34·9	− 4·3	3	1·11	+0·70
	Audley End (Saffron Walden) ℳ	54	15	33·0	− 6·4	4	1·40	?
	Rothamsted	54	14	32·7	− 7·0	4	1·13	+0·49
4. MIDLAND COUNTIES	Nottingham	59	14	32·7	− 6·6	3	0·34	−0·19
	Loughborough	61	13	34·3	− 5·2	3	0·37	?
	Leicester	53	20	33·7	− 5·8	4	0·49	?
	Shrewsbury ℳ	52	11	31·3	− 9·3	5	0·52	?
	Hereford ℳ	53	15	34·5	− 6·4	5	0·83	+0·11
	Cirencester	52	15	33·7	− 7·0	5	2·08	+1·26
	Oxford	53	19	35·7	− 4·4	4	1·73	+1·19
5. ENGLAND, S.	London	54	21	38·0	− 1·9	4	2·03	+1·49
	Marlborough ℳ	57	18	35·8	− 5·0	2	2·39	+1·63
	Strathfield Turgiss ℳ	53	19	36·0	− 4·7	4	2·33	+1·72
	Dover	50	30	39·9	+ 0·2	5	1·19	+0·39
	Hastings	50	28	40·1	− 0·1	4	2·51	+1·81
	Hurst Castle	49	28	40·4	− 1·4	5	2·43	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	50	22	32·8	− 7·1	1	0·25	?
	Glasgow	49	22	33·5	− 5·7	2	0·25	−0·88
	Ardrossan	50	27	36·5	− 3·3	3	0·28	−0·76
	Silloth	48	22	34·6	− 4·8	1	0·10	−0·71
	Douglas (Isle of Man)	50	24	36·1	− 5·3	4	0·13	?
7. ENGLAND, N.W.	Stonyhurst	50	20	33·0	− 7·1	2	0·18	−0·89
	Manchester	52	17	31·9	− 7·6	2	0·28	−0·47
	Liverpool Observatory (Bidston)	52	22	36·1	− 4·7	3	0·24	−0·26
	Holyhead	52	30	39·5	− 2·9	3	0·13	−0·81
8. ENGLAND, S.W.*	Pembroke	51	32	40·7	− 2·3	4	1·65	+0·61
	Falmouth	53	37	45·2	0·0	6	4·45	+3·47
	Prawle Point	52	30	41·6	− 2·5	4	1·72	?
9. IRELAND, N.	Mullaghmore	50	30	38·0	− 4·2	3	0·45	?
	Dunfanaghy	43	30	37·1	− 3·9	6	0·62	?
	Greencastle	48	25	35·4	− 5·3	5	0·87	−0·05
	Armagh	49	25	33·6	− 7·6	2	0·44	−0·24
	Donaghadee	49	27	35·7	− 5·5	2	0·14	?
10. IRELAND, S.	Dublin	52	24	36·1	− 5·9	3	0·40	−0·18
	Kingstown	53	27	37·2	− 4·9	3	0·45	−0·23
	Parsonstown	52	20	34·3	− 6·8	4	0·43	−0·33
	Roche's Point	52	29	41·2	− 1·9	6	2·20	+0·80
	Valentia	54	30	43·0	− 0·3	6	1·20	−0·37
SCOTLAND, N.	Sumburgh Head	40	25	32·9	− 7·2	7	0·54	−0·18
	Stornoway	40	24	32·5	− 7·9	5	0·41	?
	Thurso	41	27	34·0	− 5·8	6	1·72	+1·05
	Wick	43	20	31·8	− 7·7	5	1·02	+0·45
——	Scilly (St. Mary's)	53	40	46·7	+ 0·7	7	3·19	+2·15
	Jersey (Noirmont)	52	34	44·4	0·0	4	2·27	+1·52

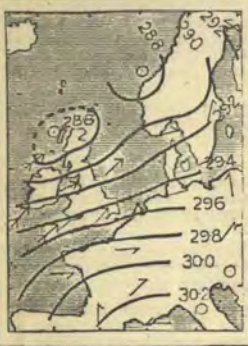
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.
* Prawle Point has taken the place of Plymouth in this district.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending January 6, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, December 31, 1878.

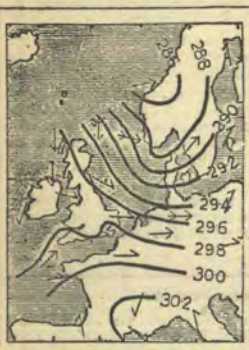
Weather dull over nearly the whole of western Europe, and squally in the United Kingdom. Very unsettled all day, and rain falling, except over France.

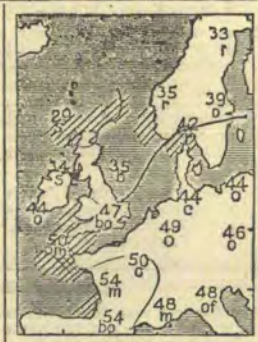
Temperature risen very rapidly in Sweden, but changed very little over these Islands and their neighbourhood, varying from 59° at Biarritz and 54° at Cambridge to 37° in the N. Maxima exceeding 50°, except in Scotland, and rising to 59° at Cambridge and Nottingham, and 63° at Biarritz.

Wind light from the eastward in the N., strong to a gale from S.W. or W.S.W. in most other places. More westerly in direction later in the day, and blowing a gale at night, except in Scotland.

Sea high or rough in the W. and S., and off the S.W. of Norway.

Barometer rising over France and the Channel, falling elsewhere, rapidly in Norway and Sweden, slightly these Islands. Readings highest over southern France; a large depression over Scotland.





Wednesday, January 1, 1879.

Weather fair at first over the greater part of these Islands, but snow falling in the N.W. Sky overcast on the continent, rainy over Norway. Heavy snow and rain subsequently at all the more southern stations.

Temperature fallen generally,—as much as 10° to 16° in the E. Varying from 50° at Scilly to 28° in the Shetlands. Maxima at central and southern stations between 45° and 50°, and minima between 25° and 30° over central England.

Wind north-westerly in Scotland, westerly over England, the North Sea, and N. of France, southerly in Sweden. Strong in force except in the W. and N.E., and blowing a gale in several places. Wind shifting to S.W. at the entrance to the Channel at night, and to E. in the W. and S., and blowing a strong breeze or gale.

Sea rough in the N. and S.W., and high off Ushant.

Barometer falling over Scandinavia, and large depression shown near Christiansund, rising elsewhere rapidly over Scotland. Fresh disturbance appearing in S.W. in the afternoon, and travelling eastwards and south-eastwards over the S. of England and the Channel.

Thursday, January 2.

Weather dull over France, dull and snowy in the N. of Scotland and over Sweden and Norway; very fine over the greater part of the United Kingdom. Weather fair most of the day, but heavy rain again at night, with some snow.

Temperature fallen generally, varying from 42° at Scilly to 25° at Nottingham. Maximum readings low during day.

Wind between N.W. and W. at nearly all places; light or moderate on our coasts, but strong to a gale over the North Sea and the Netherlands. Strong southerly to south-easterly wind in S.W. at night.

Sea rough on many parts of our coasts.

Barometer fallen rapidly in the N.E. of France, risen briskly elsewhere. Pressure greatest over Spain, least over the N. of Scandinavia. A small depression over the N.E. of France, and a new depression appearing in S.W. during the afternoon.

Friday, January 3.

Weather very unsettled, snow and rain falling over the major part of Great Britain and the N. of France, and sky overcast generally. Finer in N.W. in evening but snow and rain continuing elsewhere.

Temperature several degrees lower than on 2nd in Scotland, much warmer over England and Ireland, varying from 50° at Scilly to 15° at Aberdeen. Minima in N. of England in night below 20°.

Wind south-westerly to westerly over the Channel and N. of France, strong to a gale; southerly in the S.E., and easterly over the N. of England and Ireland. On the eastern shores of the North Sea separate north-westerly current existing, blowing a gale over Scandinavia, northerly breezes in evening.

Sea rough to high in the S. and W. as well as at Christiansund and in the Skager Rack.

Barometer falling quickly over these Islands, rising in Scandinavia. Pressure high over Mediterranean. Depressions shown over England, the W. of Ireland, and the Baltic, the first moving eastward.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, January 4.

Weather still cloudy and unsettled on the Continent and in the N. and N.W., fine elsewhere. Very little rain-fall during day.

Temperature risen fast N. (as much as 21° at Aberdeen) fallen quickly S., readings comparatively uniform over England generally, but varying from 43° at Scilly to 21° at Nottingham. Minima next night low only in eastern and central districts.

Wind northerly to north-westerly on our coasts and north-westerly to westerly over France, fresh or strong in force except in the S.E. Fresh northerly winds all day.

Sea rough in the S.W. and N.

Barometer rising over these Islands, falling on the Continent. Anticyclone over Ireland, disturbances on the eastern shores of the North Sea and over Brittany. Pressure increasing briskly during day.

Sunday, January 5.

Weather fine over the greater part of western Europe, but rain falling at Thurso, Scilly, and Brest; snow or sleet at Aberdeen and Oxō. Heavy rain subsequently falling in western France, but very little on our coasts.

Temperature fallen generally, varying from 44° at Scilly and 40° at Thurso to 23° at Nottingham. Minima in following night below 20° over inland England.

Wind north-westerly at our eastern and northern stations and the North Sea, southerly over the W. of France, and south-easterly in the S.W. of England and over Ireland; easterly at Mullaghmore; moderate or light in force, except at Scilly. S.E. wind freshening at night.

Sea rough in S.W.

Barometer beginning to fall in extreme S.W., rising briskly elsewhere. Readings highest over Spain, comparatively low off our S.W. coasts and over Baltic. Fall continuing in S.W. during day.

Monday, January 6.

Weather wet and gloomy on our S.W. coasts, and dull in the W. of France, but fair elsewhere, becoming generally dull and foggy later in the day, with heavy rain in the W. and S.W.

Temperature several degrees lower over Great Britain and France than on 5th, but higher in W. Readings varying from 44° at Scilly to 15° at Nottingham; Thurso now as low as 28°. Thermometer rising irregularly during day and following night.

Wind fresh to a gale from the south-eastward on our western coasts, and moderate from E. over the Bay of Biscay; light and variable in the E. Wind subsequently veering more toward southward in the W., and rising to a gale at Scilly.

Sea rough in S.W.

Barometer rising over all the more eastern parts of our area, but falling in the extreme W., as well as in the S.W. of France. Pressure still decreasing in the W. at night.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⇢ = a gale; → = a fresh to strong breeze; → = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[13376.—150.—1/79.]

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3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	47	17	31	7 below.	4	6	1 less.
	2. ENGLAND, NORTH-EAST	46	19	32	6 below.	4	5	0 (average).
	3. ENGLAND, EAST	42	10	28	10 below.	4	2	4 less.
	4. MIDLAND COUNTIES	54	9	27	12 below.	3	2	4 less.
	5. ENGLAND, SOUTH	48	15	30	10 below.	3	3	6 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	53	17	32	7 below.	3	11	3 less.
	7. ENGLAND, NORTH-WEST	48	12	31	9 below.	2	7	2 less.
	8. ENGLAND, SOUTH-WEST	51	19	35	8 below.	4	9	2 less.
	9. IRELAND, NORTH	51	20	34	6 below.	4	8	1 less.
	10. IRELAND, SOUTH	53	18	38	4 below.	4	13	2 more.

General Remarks.

Weather changeable, but finer in the north and east than in the west and south. Temperature several degrees below the mean, especially over England, and again exhibiting very great extremes. Thermometer falling gradually during early part of week, and reaching its minimum value in most places on the 11th or 12th, when 9° was registered at Shrewsbury and about 10° to 19° in other districts of England. Maximum (day) temperatures recorded at this time exceedingly low in some parts of England, reaching only 23° at Shrewsbury and 25° to 27° at many other stations. At end of week thermometer rose rapidly, and on the 13th readings ranging from 48° to 54° were recorded over Ireland and the greater part of England.

Rainfall more than the mean in "Ireland, S.," and about the mean in "England, N.E.," but a few tenths less in all other districts. At the northern and north-eastern stations the fall was composed largely of snow, sleet, or soft hail. The excessive amount in the district "Scotland, W.," is due mainly to a very heavy fall, which occurred on the 12th at only one of the stations (Douglas, Isle of Man).

Wind easterly to south-easterly until the 12th, when southerly breezes set in, veering to S.W. or W. on the 13th. South-easterly gales very general during early part of week, especially heavy in the E. of Ireland and S.W. of England. Wind lulled on the 11th but rose to fresh or strong gale from the southward in some places on 12th or morning of 13th.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	44	18	30·6	− 7·6	3	0·04	−0·49
	Aberdeen	41	23	34·1	− 3·1	4	0·57	−0·07
	Glenalmond	40	23	29·1	− 8·7	4	1·00	?
	Leith	47	17	31·1	− 6·6	3	0·83	+0·36
2. ENGLAND, N.E.	Shields	46	27	34·1	− 3·7	4	0·74	+0·27
	Durham	45	22	30·8	− 6·9	4	0·52	−0·08
	Scarborough	43	27	33·4	− 4·5	4	0·45	−0·03
	York	46	23	31·2	− 6·6	3	0·29	−0·17
	Kelstern (Lincolnshire) ℳ	38	19	27·8	−10·0	5	0·29	−0·13
3. ENGLAND, E.	Yarmouth	40	19	30·0	− 7·6	5	0·17	−0·45
	Cambridge	41	17	27·7	−10·1	3	?0·16	−0·19
	Audley End (Saffron Walden) ℳ	41	15	26·9	−11·1	4	0·17	?
	Rothamsted	42	10	26·7	−11·8	5	0·28	−0·46
4. MIDLAND COUNTIES	Nottingham	44	15	27·3	−11·0	3	0·38	−0·19
	Loughborough	54	13	28·2	−10·1	1	0·23	?
	Leicester	46	17	28·5	−10·1	3	0·14	?
	Shrewsbury ℳ	49	9	26·2	−13·2	3	0·09	?
	Hereford ℳ	52	10	26·5	−13·5	3	0·18	−0·60
	Cirencester	45	12	27·2	−12·6	3	0·43	−0·47
	Oxford	43	17	27·7	−11·4	3	0·13	−0·47
5. ENGLAND, S.	London	48	18	29·3	− 9·9	4	0·07	−0·57
	Marlborough ℳ	46	15	27·5	−12·4	3	0·48	−0·35
	Strathfield Turgiss ℳ	45	15	28·0	−11·9	2	0·10	−0·62
	Dover	43	15	30·5	− 8·4	3	0·11	−0·69
	Hastings	43	21	31·0	− 8·0	2	0·24	−0·50
	Hurst Castle	45	20	32·3	− 8·7	3	0·68	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	53	22	34·6	− 4·7	2	0·80	?
	Glasgow	43	19	31·6	− 6·4	4	0·62	−0·59
	Ardrossan	46	22	32·4	− 6·5	3	0·74	−0·42
	Silloth	48	17	30·5	− 8·1	3	1·03	+0·13
	Douglas (Isle of Man)	47	18	32·8	− 7·6	3	2·41	?
7. ENGLAND, N.W.	Stonyhurst	45	19	30·9	− 7·9	3	0·72	−0·33
	Manchester	47	19	29·7	− 8·3	1	0·51	−0·25
	Liverpool Observatory (Bidston)	48	12	30·0	− 9·7	1	0·45	−0·09
	Holyhead	48	24	32·8	− 9·1	3	0·98	+0·02
8. ENGLAND, S.W.	Pembroke	47	22	33·9	− 8·0	3	0·87	−0·27
	Falmouth	51	25	37·5	− 7·2	5	1·51	+0·48
	Prawle Point	48	19	33·8	− 9·2	5	0·37	−0·80
9. IRELAND, N.	Mullaghmore	49	29	36·5	− 3·9	3	0·72	?
	Dunfanaghy	51	25	34·2	− 6·0	3	0·58	?
	Greencastle	45	22	33·7	− 5·9	4	0·57	−0·31
	Armagh	46	20	33·4	− 6·8	4	0·78	+0·07
	Donaghadee	46	21	33·6	− 6·7	4	1·34	?
10. IRELAND, S.	Dublin	49	21	35·1	− 6·0	3	0·69	+0·07
	Kingstown	50	27	35·8	− 5·8	3	1·06	+0·34
	Parsonstown	51	18	34·6	− 5·4	4	0·77	−0·04
	Roche's Point	50	31	40·2	− 2·4	6	1·98	+0·50
	Valentia	53	32	42·2	− 0·8	6	1·75	+0·10
SCOTLAND, N.	Sumburgh Head	44	27	35·1	− 4·2	5	0·19	−0·43
	Stornoway	44	23	35·3	− 4·3	2	0·25	?
	Thurso	40	26	33·8	− 5·2	4	0·33	−0·29
	Wick	44	28	35·7	− 3·1	4	0·12	−0·38
——	Scilly (St. Mary's)	53	32	41·5	− 4·3	5	1·14	0·00
	Jersey (Noirmont)	45	25	33·1	−10·6	4	1·24	+0·47

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending January 13, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, January 7.

Weather very fine on the eastern shores of the North Sea, dull or cloudy elsewhere; mist reported in the W. of France, rain at our south-western stations. Heavy rain subsequently falling in S.W. and snow in N.W.

Temperature fallen several degrees over the S. of Norway, Denmark, and N. Germany, risen elsewhere, rapidly in Central England. Minima in following night between 25° and 30° at central and south-eastern stations.

Wind easterly to south-easterly over England and Ireland, and southerly in Scotland, blowing a gale in S.W., W., and N. Fresh to strong south-easterly gales generally during day or following night.

Sea "rough" or rather so on all but our S.E. coasts.

Barometer rising over Scandinavia, Denmark, and N. Germany, falling over the whole of these Islands and W. of France. Anticyclone over southern Norway and rather deep depression off our W. coasts. Disturbance afterwards moving slowly northwards.

Wednesday, January 8.

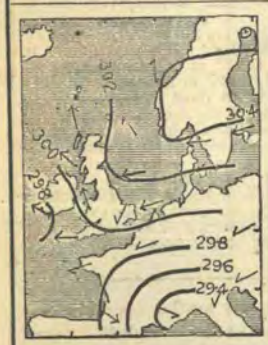
Weather still fine on eastern shores of North Sea, and become so in Scotland, dull elsewhere; rain, fog, and mist over France. No rain over these Islands during day, and sky clear in evening.

Temperature fallen, except over the Baltic and S.W. of France, varying from 48° at Valentia to 28° over central England. Maxima only slightly exceeding 32° at our central stations, and sharp frost at night.

Wind easterly in the S., south-easterly to southerly in the W. and N.; gales or very strong winds continuing on all coasts. Gale subsiding in N., but still holding in S. at 6 P.M.

Sea "very high" at Wick, "high" in the N.E. and S.W., "rough" generally.

Barometer rising over the Gulf of Bothnia, falling in all other places, rapidly at our south-western and the French stations. Depression off the S. of Ireland, moving south-eastward towards Brittany, and reaching Rochefort by 6 P.M.



Thursday, January 9.

Weather fine in the W. and N. of these Islands as well as at most of the French and Norwegian stations, but dull elsewhere. Sky clear in S.E. at night. Slight snow in the N.E. during day, rain in S. of Ireland.

Temperature fallen slightly at our south-western stations, and quickly over France, risen in most other districts. Varying from 41° at Valentia to 27° at Hurst Castle, and 28° at Rochefort. Sharp frost again at night.

Wind generally easterly over England, south-easterly in Ireland, and southerly in Scotland; strong in force on most coasts, and blowing a fresh gale in Ireland. Severe south-easterly gales subsequently experienced in W. and S.W.

Sea "high" at Valentia and Biarritz, "rough" in the E., S.W. and W.

Barometer risen briskly or quickly in all places, and depression recently noticed travelled away south-eastward over France. Fresh fall, however, appearing at Valentia, and extending during day to all coasts.

Friday, January 10.

Weather still fine over Scandinavia, dull or cloudy elsewhere, snow falling at our north-eastern and south-eastern stations as well as on the eastern shores of the North Sea and the west of France, rain in the S.W. Snow showers subsequently in the E., and snow and rain in the S.W.

Temperature fallen briskly over Scandinavia, and a few degrees generally; varying from 38° at Valentia to 25° in the S.E. of England, 20° at Brussels, and 18° at Cape Griz Nez. Thermometer not exceeding 40° at any station during day, and not reaching 30° in many parts of England.

Wind easterly to south-easterly or south-south-easterly, blowing a severe gale at Scilly and in the E. of Ireland, and a moderate or fresh gale in many other places. Wind falling lighter and "backing" later on.

Sea "very high" at Scilly, "high" at some northern and western stations, "rough" elsewhere.

Barometer rising in Lapland, falling in all other places,—quickly in the S.W. Large depression off our S.W. coasts, anticyclone over Baltic, gradients steep. Depression moving south-eastward during day.

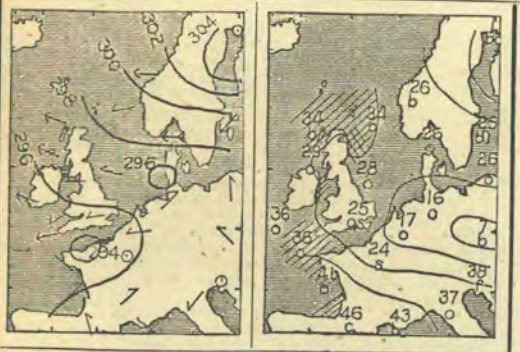
(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, January 11.

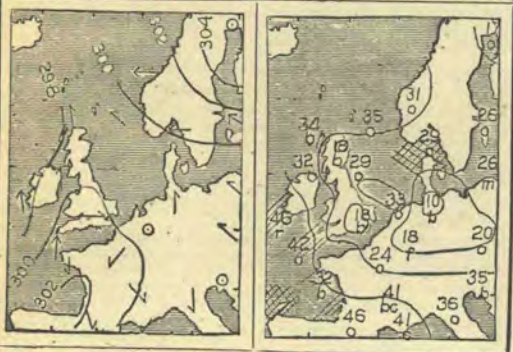
Weather cloudy or dull generally, with snow at our eastern and central stations; rain at Rochefort. Snow showers subsequently falling in the E. and rain in the S.W.

Temperature risen rapidly in the W. of France, and quickly over the Gulf of Bothnia; fallen elsewhere; varying over these Islands from 36° in the S.W. and at Wick to 20° at Liverpool. Following night very cold.

Wind easterly at most of our stations, but drawing into N.E. in the S.W. and into S.E. in the N. Fresh in places; south-westerly breezes in the W. of France. Later in day northerly breezes appearing over England.

Sea "high" off Aberdeen and Scilly; "rough" in the N. and S.W.

Barometer rising briskly in the S.W. of our Islands, and slightly in the W. of France; fallen elsewhere. Anticyclone still shown in Sweden, with depressions lying, one over Denmark and another over Brittany. Barometer rising generally at night.



Sunday, January 12.

Weather wet and dull in the S.W., dull over France and Scandinavia, fine at most of our stations. Snow and sleet falling generally during day.

Temperature risen fast in the S.W., fallen in N.W. of France, central and southern England, and N. Germany; readings varying from 46° at Valentia to 17° at Oxford and Nottingham, and 10° at Cuxhaven. Rise of temperature in S.W. spreading quickly. Hurst Castle 18° warmer at 6 P.M. than at 8 A.M.

Wind fresh to strong, southerly in the W., fresh easterly over Scandinavia, very light westerly on our E. coast. The southerly wind subsequently extending eastward, blowing a hard gale at Scilly and strongly over Ireland and Scotland.

Sea "rough" in S.W. and W., "high" at Coruña and the Skaw.

Barometer fallen slightly at Valentia, risen in all other places very rapidly in the N.W. of France and the Channel Isles. Readings high over Bay of Biscay and also over Gulf of Bothnia, low off Valentia. Fall in W., spreading eastward during day.

Monday, January 13.

Weather clear in many parts of Ireland and Scotland, dull elsewhere, with rain in the S.E. and fog in several places. Rain falling later except in the N.E. Evening very clear in N. and E., foggy in S.

Temperature risen considerably everywhere, the change exceeding 20° over southern England. Readings at 8 A.M. varying from 51° at Scilly to 35° at Wick; maxima exceeding 50° in S.W. and reaching 48° in London.

Wind south-westerly to westerly on most of our coasts and over the N. of France, but south south-easterly in the W. of Norway and the Shetlands; fresh in force at some of the S.W. and W. stations, and blowing a gale at Skudesnaes and Sumburgh Head.

Sea "rough" in the S.W., "high" off the Shetlands.

Barometer falling in the N. and E. of the British Isles, rising in the S.W. and over the greater part of the Continent. Readings high over central France and Lapland, low off Hebrides. Pressure unsteady and beginning to give way again in S.W. during day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟫⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. NO. 3.] WEEK ENDING MONDAY, JANUARY 20, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.

2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).

3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.

4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.

5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.

6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).

7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.

8. ENGLAND, S.W.—Pembroke, Falmouth, Prawle Point.

9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.

10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857–69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	49	11	34	4 below.	3	5	3 less.
	2. ENGLAND, NORTH-EAST	45	24	35	3 below.	5	5	1 more.
	3. ENGLAND, EAST	46	22	35	4 below.	3	6	1 more.
	4. MIDLAND COUNTIES	48	15	34	5 below.	3	10	3 more.
	5. ENGLAND, SOUTH	48	24	36	3 below.	3	10	2 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	49	22	36	3 below.	3	8	5 less.
	7. ENGLAND, NORTH-WEST	49	24	35	4 below.	4	8	0 (average).
	8. ENGLAND, SOUTH-WEST	52	33	42	1 below.	4	13	2 more.
	9. IRELAND, NORTH	49	25	39	1 below.	5	7	2 less.
	10. IRELAND, SOUTH	52	28	42	1 above.	5	17	6 more.

General Remarks.

Weather generally fine in Scotland and the north of England, but very dull and wet in the western and south-western districts; a good deal of fog over England on the 14th and 17th. Temperature uniformly a little above the mean in "Ireland, S.," but below it in all other districts, the deficit ranging from one degree in "Ireland, N.," and "England, S.W.," to four degrees in the northern districts and five degrees over the Midland Counties. Thermometer highest at commencement of week, when maxima ranging from 42° to 48° were recorded over England; lowest towards close, when minima were below 25° generally, and as low as 15° at Loughborough (on the 20th). At Glenalmond on the 20th the sheltered thermometer fell to 11°, and that on the grass to zero.

Rainfall less than the mean in Scotland and the north of Ireland, but more in all other districts excepting "England, N.W.," where the amount was about the average. In the northern and eastern districts the fall was mainly in the form of snow, but in the south-west it was principally rain. The exceptionally heavy fall of 2·84 ins. reported from Valentia on Sunday the 19th was quite local, the amount at the other stations in the district being less than half an inch.

Wind westerly at some of the south-western stations on the 15th and again on the 18th, but usually south-easterly to easterly over the whole country. Generally moderate in force in the east and south-east, but strong to a gale in the west; severe easterly gale at Scilly on the 16th, and south-easterly gales at many of the south-western stations on the 20th.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	46	24	34·6	− 3·3	-	-	−0·52
	Aberdeen	42	25	35·0	− 2·0	4	0·54	−0·09
	Glenalmond	40	11	30·1	− 7·6	4	1·10	?
	Leith	49	22	34·5	− 3·2	3	0·31	−0·16
2. ENGLAND, N.E.	Shields	42	27	35·9	− 1·7	1	0·09	−0·35
	Durham	44	24	33·0	− 4·5	3	0·47	0·00
	Scarborough	43	32	37·4	0·0	2	0·58	+0·15
	York	45	25	33·9	− 3·8	2	0·69	+0·24
	Kelstern (Lincolnshire) ℳ	42	28	34·2	− 3·2	3	0·74	+0·33
3. ENGLAND, E.	Yarmouth	42	30	34·6	− 2·7	1	0·18	−0·42
	Cambridge	46	24	34·4	− 3·4	2	0·62	+0·30
	Audley End (Saffron Walden) ℳ	44	22	34·4	− 3·6	2	0·58	?
	Rothamsted	46	22	34·4	− 4·3	6	1·12	+0·42
4. MIDLAND COUNTIES	Nottingham	46	21	32·9	− 5·1	3	0·89	+0·43
	Loughborough	?	15	?	?	3	1·01	?
	Leicester	46	22	33·6	− 4·9	3	0·79	?
	Shrewsbury ℳ	46	18	32·5	− 7·0	3	0·97	?
	Hereford ℳ	48	24	34·6	− 5·4	3	0·49	−0·28
	Cirencester	46	25	34·0	− 5·6	4	1·32	+0·40
	Oxford	47	26	34·9	− 4·1	4	1·23	+0·63
5. ENGLAND, S.	London	47	28	35·7	− 3·1	4	0·82	+0·24
	Marlborough ℳ	48	25	34·8	− 5·0	3	1·28	+0·42
	Strathfield Turgiss ℳ	47	24	34·3	− 5·4	3	1·19	+0·45
	Dover	44	29	36·5	− 2·0	3	0·72	−0·05
	Hastings	45	28	36·1	− 2·4	3	0·56	−0·19
	Hurst Castle	47	32	39·0	− 1·5	4	1·32	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	48	31	37·7	− 1·0	4	0·81	?
	Glasgow	46	22	34·7	− 3·1	2	0·45	−0·80
	Ardrossan	47	24	36·2	− 2·4	4	0·98	−0·20
	Silloth	49	22	34·4	− 4·1	3	0·46	−0·47
	Douglas (Isle of Man)	46	25	36·8	− 3·6	4	1·16	?
7. ENGLAND, N.W.	Stonyhurst	45	24	34·2	− 4·6	3	0·73	−0·29
	Manchester	46	26	34·6	− 3·1	3	1·14	+0·41
	Liverpool Observatory (Bidston)	46	25	34·1	− 5·5	3	0·84	+0·28
	Holyhead	49	31	38·5	− 3·2	5	0·58	−0·38
8. ENGLAND, S.W.	Pembroke	48	34	40·6	− 1·2	3	0·94	−0·22
	Falmouth	52	37	43·2	− 1·1	5	1·98	+1·00
	Prawle Point	50	33	41·7	− 1·0	4	0·85	−0·31
9. IRELAND, N.	Mullaghmore	49	35	41·3	+ 0·9	4	0·48	?
	Dunfanaghy	45	25	38·2	− 2·0	6	0·72	?
	Greencastle	48	30	38·9	− 0·7	5	0·68	−0·26
	Armagh	49	28	37·9	− 2·1	4	0·57	−0·17
	Donaghadee	46	29	37·4	− 2·9	6	0·99	?
10. IRELAND, S.	Dublin	49	32	39·5	− 1·6	3	0·45	−0·17
	Kingstown	49	36	41·2	+ 0·1	4	0·58	−0·14
	Parsonstown	50	28	39·3	− 0·3	6	0·54	−0·29
	Roche's Point	49	39	43·5	+ 1·5	6	2·48	+0·98
	Valentia	52	39	46·0	+ 3·0	7	4·32	+2·61
SCOTLAND, N.	Sumburgh Head	44	35	39·2	+ 0·3	5	0·21	−0·46
	Stornoway	45	31	37·9	− 1·5	3	0·55	?
	Thurso	40	26	34·0	− 4·7	3	0·07	−0·51
	Wick	45	27	37·5	− 1·0	2	0·13	−0·31
——	Scilly (St. Mary's)	52	40	46·9	+ 1·5	6	1·44	+0·17
	Jersey (Noirmont)	49	31	41·0	− 2·2	5	0·88	+0·12

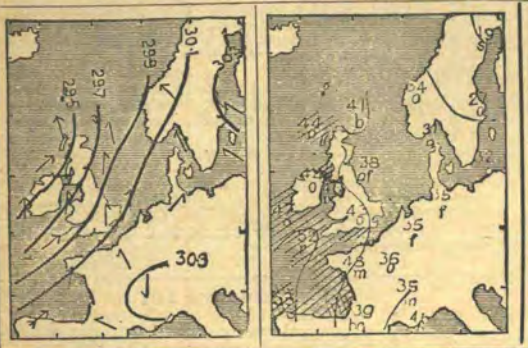
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending January 20, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, January 14.

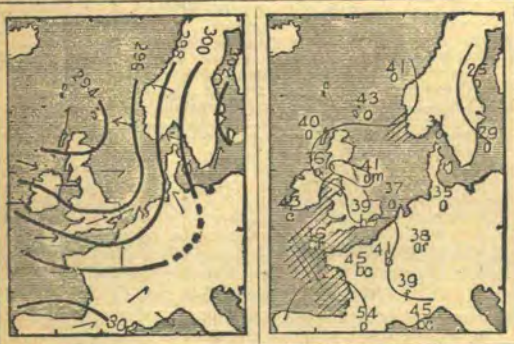
Weather fine in the extreme N.E. of Scotland, as well as in the S.W. and S. of France; dull elsewhere, with rain at some of the western stations. Fog and mist in several places, especially in the E. Rain fell generally during day, heaviest in the S.

Temperature higher than on 13th at most stations, varying over these Islands from 52° at Scilly to 37° in the E. of England. The range of temperature was slight during following day and night.

Wind southerly over these Islands and France, south-easterly over Scandinavia; fresh to strong in force except in the E., and subsequently increasing to a fresh gale at Mullaghmore and to a strong breeze in S.E.

Sea rough or rather so in the W. and S.W., and high off Biarritz.

Barometer falling except over Scandinavia—most off our S.W. coasts. Readings high over the S.E. of France and the Baltic lowest off our N.W. coasts. Pressure giving way all day.



Wednesday, January 15.

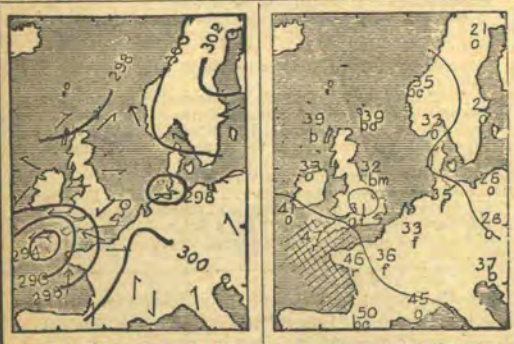
Weather varying considerably in different localities; very changeable over the United Kingdom during the day. Rain fell during the day or night over the western, south-western, and central stations, but scarcely any occurred elsewhere.

Temperature fallen several degrees over these Islands and the N.W. of France, risen over the greater part of the Continent; varying from 46° at Scilly to 33° at Thurso. Slight frost over central England at night.

Wind westerly over Ireland, England, and France, and southerly to south-easterly over the North Sea, calms over Scotland. Easterly breeze appearing at Valentia at night; no other change of importance.

Sea high in the S.W., rough in the west and south.

Barometer after a general fall beginning to recover again over these Islands and France. Large depression over N. Britain and the North Sea, gradients steep to eastward and southward. Slight decrease at Valentia at night.



Thursday, January 16.

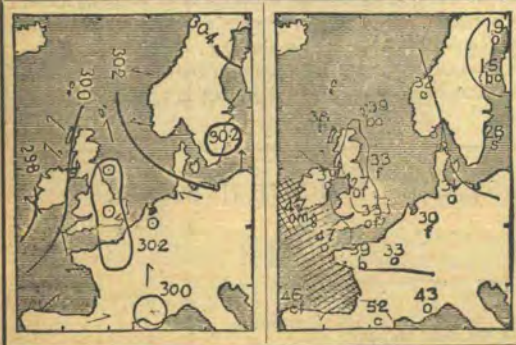
Weather fine in N. and N.E., overcast in W., rain at all south-western stations. Weather exceedingly fine in the evening except in the W. of France. No rain except in W. and S.W.

Temperature lower than on 15th in most places, especially over central England, varying from 47° at Scilly to 28° at Nottingham and York. Sharp frost at inland stations at night.

Wind variable, very light south-westerly to westerly in the N. and E., easterly in the W. and S.W., southerly over Bay of Biscay, fresh or strong at the south-western stations, and blowing a severe gale at Scilly. The gale ended 4 P.M., but westerly gale sprang up over western France.

Sea high at the mouth of the Channel and round the W. coast of France.

Barometer fallen fast in the S.W. and slightly at all the French stations, but risen briskly over the greater part of these Islands. Deep depression in S.W. moving south-eastward. Rise continuing all day.



Friday, January 17.

Weather variable; still clear at the northern and north-western stations; much clouded elsewhere, with thick fog in S.E. Fog very dense in London later in day. Rain falling subsequently except in Scotland and on the E. coast of England.

Temperature risen Ireland, fallen several degrees elsewhere; varying from 47° in S.W. to 23° at Leith. Thermometer rising steadily all day over the whole country.

Wind southerly to south-easterly over Ireland and W. of Great Britain: strong generally, and reaching a gale at Valentia. Light airs and calms prevailing in the E.; southerly wind becoming general later, and increasing in force in the W.

Sea high W. of Ireland, rough in the Bay of Biscay and on our S.W. coasts.

Barometer falling briskly W., rising E. Anticyclone over England and new depression appearing to the westward of Ireland, and travelling north-north-eastward, while yesterday's disturbance was disappearing over Mediterranean. Fall of barometer spreading eastward and northward during the day.

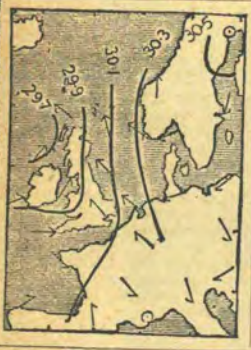
(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, January 18.

Weather fair in S.W., dull or cloudy elsewhere, with a gloomy appearance in the E.; much rain, snow, and sleet over the inland parts of England. Snow showers over England and the E. of Scotland during day.
Temperature fallen S. Ireland, risen several degrees on our N.E. coasts, and slightly elsewhere, varying from 49° at Scilly to 33° at Nottingham. No extremes of importance.
Wind N.W. over Brittany, and westerly on our S.W. coasts, southerly to south-south-easterly elsewhere, moderate or fresh in force in most places, but reaching a gale in the N.E. of Scotland.
Sea high off the N.E. coast of Scotland, rough on our other northern coasts and in the S.W.
Barometer recovering briskly at our extreme western and south-western stations, and rising slowly over Scandinavia, falling elsewhere. Readings high over Gulf of Bothnia and S.E. of France, low off the W. of Scotland. Barometer still rising everywhere at night.

Sunday, January 19.

Weather still fine in Scotland, cloudy or dull elsewhere, but sky clearing very considerably over England towards evening. Very heavy and continuous rain (2·84 ins.) falling at Valentia, and 0·5 in. at Roche's Point, but scarcely any at our other stations.
Temperature rather higher than on the 18th in S. Ireland, lower in nearly all other places, varying from 47° at Valentia to 31° at Nottingham. Maxima between 35° and 40°, except in S.W. Sharp frost at inland stations.
Wind north-easterly to easterly on eastern shores of North Sea, S.E. of England and France, south-easterly elsewhere; strong in the W. and N., and a gale at Valentia. Fresh to strong gale in S.W. and W. at night.
Sea high off Ushant, the S.W. of England and Ireland, and at Wick, rough at the other western and southern ports.
Barometer rising over the greater part of western Europe, but beginning to fall at Valentia. Anticyclone over the eastern shores of North Sea, and depression off our W. coasts. Little change during day.

Monday, January 20.

Weather continuing fine and bright in N. of Scotland, cloudy or dull elsewhere, with rain and sleet in Ireland, mist and gloom in the S. and S.E. Snow subsequently falling in the N.E. of Scotland, and snow and rain on our western coasts.
Temperature fallen generally several degrees in the N.E. and S.W., varying from 45° at Valentia to 24° in S. Scotland. Rather sharp frost at central stations at night. Air very keen.
Wind northerly to north-easterly to the eastward of the North Sea and over the S. of France, south-easterly elsewhere, moderate or light in the E., but blowing strongly in the W., reaching a hard gale at Scilly, and a fresh gale in S. Ireland.
Sea high off Scilly, rough in the W. and S.W.
Barometer risen somewhat over N. Sweden and E. France, fallen elsewhere. Anticyclone still over Scandinavia, where the barometer stood at 30·5 in., a depression lay off S.W. of Ireland, apparently moving south-eastward at night.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

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[13376.—150.—1/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 4.] WEEK ENDING MONDAY, JANUARY 27, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	40	12	29	9 below.	1	1	5 less.
	2. ENGLAND, NORTH-EAST	37	8	30	8 below.	3	1	3 less.
	3. ENGLAND, EAST	35	19	30	9 below.	1	less than ½	5 less.
	4. MIDLAND COUNTIES	36	16	30	10 below.	0	—	6 less.
	5. ENGLAND, SOUTH	39	22	31	9 below.	1	less than ½	7 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	40	15	30	9 below.	1	less than ½	8 less.
	7. ENGLAND, NORTH-WEST	39	21	30	10 below.	0	—	8 less.
	8. ENGLAND, SOUTH-WEST	42	26	32	11 below.	1	1	10 less.
	9. IRELAND, NORTH	42	18	32	9 below.	3	1	7 less.
	10. IRELAND, SOUTH	48	20	34	8 below.	1	less than ½	10 less.

General Remarks.

Weather generally fine in Scotland and the north of England, and fine at some of the western stations on the 22nd and 23rd, but almost continuously overcast and gloomy in the southern and eastern districts. Temperature several degrees below the mean in all districts, the deficit ranging from eight degrees in "England, N.E.," and "Ireland, S.," to eleven degrees in "England, S.W." The maxima frequently lower than 35° over England and Scotland and sometimes down to 32°; the minima occasionally below 20° over England, Scotland, and the north of Ireland, the lowest reading of all (8°) being registered at Durham on the 27th. The thermometer exposed on grass as low as 4° at Glenalmond (Scotland, E.) on the 25th.

Rainfall much less than the mean in all districts. None at all reported from the Midland Counties and "England, N.W."; less than half a tenth of an inch in "England, E. and S.," "Scotland, W.," and "Ireland, S.," and not more than one tenth in any other district. The fall in all places was principally in the form of showers of sleet or snow.

Wind north-easterly over all the more southern districts, moderate to fresh in force. South-easterly in the north at the commencement of the week, but south-westerly towards its close; the latter breezes strong in force in the Hebrides and Shetlands.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	40	24	31·2	− 6·9	1	0·02	−0·47
	Aberdeen	37	24	29·9	− 7·3	2	0·10	−0·51
	Glenalmond	36	12	25·3	−12·5	1	0·08	?
	Leith	37	20	28·5	− 9·5	1	0·04	−0·42
2. ENGLAND, N.E.	Shields	37	15	29·2	− 8·7	3	0·29	−0·13
	Durham	35	8	26·3	−11·5	4	0·17	−0·28
	Scarborough	36	29	32·9	− 4·9	3	0·06	−0·34
	York	36	23	30·5	− 7·5	2	0·04	−0·40
	Kelstern (Lincolnshire) ℜ	35	26	30·2	− 7·5	4	0·04	−0·38
3. ENGLAND, E.	Yarmouth	35	28	31·2	− 6·5	1	0·01	−0·57
	Cambridge	35	20	29·9	− 8·4	1	0·02	−0·28
	Audley End (Saffron Walden) ℜ	34	19	29·1	− 9·4	2	0·02	?
	Rothamsted	34	21	28·8	−10·2	1	0·01	−0·64
4. MIDLAND COUNTIES	Nottingham	35	21	30·6	− 7·9	0	—	−0·41
	Loughborough	36	16	29·4	−10·1	0	—	?
	Leicester	35	20	29·9	− 8·8	1	0·01	?
	Shrewsbury ℜ							
	Hereford ℜ	36	24	30·0	−10·2	0	—	−0·72
	Cirencester	35	22	29·1	−10·8	0	—	−0·88
	Oxford	34	23	29·4	− 9·8	0	—	−0·55
5. ENGLAND, S.	London	35	25	30·3	− 8·7	2	0·02	−0·51
	Marlborough ℜ	35	22	29·1	−10·9	1	0·03	−0·79
	Strathfield Turgiss ℜ	36	23	29·8	−10·2	0	—	−0·73
	Dover	38	25	32·0	− 8·1	1	0·06	−0·64
	Hastings	36	26	31·0	− 8·9	1	0·02	−0·66
	Hurst Castle	39	28	33·3	− 7·1	2	0·05	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	39	26	33·3	− 5·4	1	0·08	?
	Glasgow	36	20	28·5	− 9·7	2	0·06	−1·19
	Ardrossan	40	23	30·5	− 8·2	1	0·01	−1·12
	Silloth	37	15	25·9	−12·9	0	—	−0·89
	Douglas (Isle of Man)	35	27	31·2	− 9·8	0	—	?
7. ENGLAND, N.W.	Stonyhurst	35	21	29·7	− 9·3	0	—	−1·00
	Manchester	34	21	28·4	− 9·7	0	—	−0·66
	Liverpool Observatory (Bidston)	36	23	29·4	−10·4	0	—	−0·54
	Holyhead	39	24	31·5	−10·1	0	—	−0·86
8. ENGLAND, S.W.	Pembroke	39	26	31·7	−10·4	0	—	−1·09
	Falmouth	42	26	33·1	−11·2	1	0·13	−0·81
	Plymouth	40	26	32·5	−10·2	1	0·08	−1·02
	Prawle Point	37	28	31·9	−11·5	3	0·13	?
9. IRELAND, N.	Mullaghmore	42	25	33·3	− 7·8	1	0·02	?
	Dunfanaghy	41	24	31·8	− 8·9	4	0·17	?
	Greencastle	39	18	31·5	− 8·3	4	0·12	−0·78
	Armagh	35	22	29·1	−10·9	3	0·03	−0·68
	Donaghadee	39	26	32·8	− 7·6	1	0·01	?
10. IRELAND, S.	Dublin	37	23	32·8	− 8·9	0	—	−0·52
	Kingstown	38	29	34·4	− 6·8	0	—	−0·68
	Parsonstown	40	20	30·4	− 9·7	1	0·02	−0·75
	Roche's Point	44	25	34·1	− 8·3	1	0·01	−1·41
	Valentia	48	27	36·3	− 6·7	1	0·02	−1·58
SCOTLAND, N.	Sumburgh Head	44	27	36·3	− 2·4	4	0·09	−0·57
	Stornoway	42	29	34·2	− 4·9	2	0·30	?
	Thurso	41	17	30·5	− 8·1	4	0·39	−0·19
	Wick	42	23	32·1	− 6·4	2	0·12	−0·30
——	Scilly (St. Mary's)	44	31	36·7	− 8·6	1	0·02	−1·08
	Jersey (Noirmont)	39	28	34·1	− 8·9	3	0·21	−0·50

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℜ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending January 27, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, January 21.

Weather fine at several of the Scotch stations but cloudy or dull elsewhere. Snow falling at Holyhead and Moville, and rain in the Shetlands. Snow in the N. during the day.

Temperature changed irregularly in these Islands, fallen over Sweden, Denmark, N. Germany, and E. of France. Readings varying from 45° in the S.W. to 27° in the S.E. Frost at night.

Wind north-easterly to the eastward of the North Sea, and easterly to south-easterly on our own and French coasts; fresh to strong in W. and S. Little change throughout the day.

Sea rough in S. and S.W.

Barometer, after falling over the whole of western Europe, beginning to rise on our western coasts. Pressure becoming very high over Sweden, but remaining low over Bay of Biscay. Rising except W. France in evening.

Wednesday, January 22.

Weather fine at most of the north-western stations and over central England, dull or cloudy elsewhere, with snow in the N.E. of Scotland, rain in the W. of France. Snow showers in N. later.

Temperature fallen except in the S.W. of France; uniformly low over these Islands, varying from 35° in the S.W. to 22° at Cambridge. Maxima very low during day, and sharp frost at night.

Wind easterly to east-north-easterly over the whole country, light in the N., fresh or strong in the S. and W. Little change subsequently.

Sea rough in the S., S.W., and N.W.

Barometer falling over the S.W. of France, as well as the N. of Scotland and W. of Norway; rising elsewhere. Readings very high over Lapland (30·9 ins.), lowest over Spain. Very little change later.

Thursday, January 23.

Weather fine at several of our western and northern stations and in some parts of Scandinavia; cloudy or dull elsewhere, with snow at Moville and Paris. Very slight snow showers in N.W. and N.E. during day.

Temperature fallen generally; uniformly low over western Europe. Thermometer not exceeding 36° except at Valentia and in the Shetlands during the day, and frost general at night.

Wind north-easterly to easterly over the S. of the British Isles and France; very light south-westerly in Scotland, and south-easterly in Norway. Blowing freshly or strongly at the southern stations.

Sea rough in the S.E., S., and S.W.

Barometer rising in the N. and W. of England and W. of France; falling elsewhere. Readings still highest over Scandinavia, whence a tongue of high pressure extended westward over the British Isles. Pressure decreasing all day except in France.

Friday, January 24.

Weather fine in several parts of Scotland and Norway, dull elsewhere, with snow in Sweden, mist and fog in some places. Weather dry generally, but slight snow in S.E.

Temperature fallen over the N.E. of these Islands and N.E. of France, risen slightly in most other places. Readings still uniformly low over the United Kingdom and France. Frost at night.

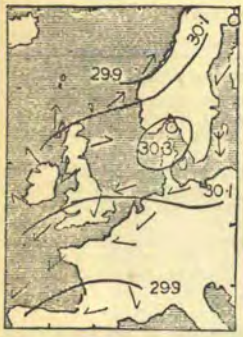
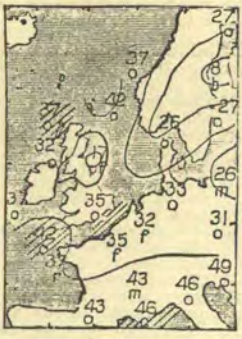
Wind north-easterly over Sweden and Denmark, easterly over the S. of the British Isles and France, south-easterly in the N. of Ireland, and south-westerly in Scotland. Blowing strongly in the S. and S.E.

Sea still rough in the S.E., S. and S.W.

Barometer rising slightly in most places. The general distribution little changed.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		**Saturday, January 25.** *Weather* fine in the extreme W. of Ireland and in a few other places, dull elsewhere, with mist in many parts of France. Snow at Hurst Castle and Jersey. Weather still dry generally. *Temperature* fallen in Sweden, risen in Norway and France, changed irregularly elsewhere; varying from 36° at Scilly and 38° in the W. of Norway, to 24° at Ardrossan. Slight frost again general at night. *Wind* continuing easterly to north-easterly over Denmark, France, and the greater part of England and Ireland; southerly to south-westerly in the N., blowing strongly at Yarmouth, Stornoway, and in Norway. *Sea* rough in the N., as well as off Yarmouth and the Scilly Islands. *Barometer* falling over the N. of Scandinavia; rising elsewhere. Highest pressures now shown over the Skager Rack, but tongue of high readings still extending westward over the British Isles.
		Sunday, January 26. *Weather* dull or cloudy over nearly the whole of western Europe, with fog and mist at many French stations, and snow showers at Oxford. Slight rain falling subsequently in the S. and S.W., and in the Shetlands. *Temperature* altered irregularly, the change over the British Isles being downward in the N.E. and N.W., upward elsewhere. Maxima low, except in N. of Scotland, and frost at night. *Wind* easterly to north-easterly at all the more south-eastern and southern stations; southerly to south-westerly in the N., blowing strongly in the Hebrides, but light elsewhere. S.W. gale at Stornoway at night. *Sea* rough in the S.W. and N. *Barometer* falling over Denmark as well as at many of our northern and extreme western stations; rising elsewhere. Readings highest over Baltic, but tongue of high pressure extending westward over us. Rising generally at night.
		**Monday, January 27.** *Weather* fair at some of the northern stations, still cloudy or dull generally; fog and mist in the S. and S.E., rain in Brittany. Weather remaining very dry. *Temperature* changing little and irregularly, varying from 42° at Scilly and the Shetlands to 24° at Aberdeen and 17° at Shields. Slight frost in the N.E. at night. *Wind* separated into two distinct currents, the northern (over Scotland, &c.) being south-westerly, the southern (over the S. of England, the Channel, and France) being north-easterly. At Scilly and Stornoway strong breezes were reported. *Sea* rough Straits of Dover as well as off Scilly and the Hebrides. *Barometer* risen very generally, but relative distribution not much changed; band of high readings still extending from our western coasts north-eastward to Sweden.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[13376.—150.—1/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 5.] WEEK ENDING MONDAY, FEBRUARY 3, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire)
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston) Holyhead.
8. ENGLAND, S.W.—Pembroke, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	45	21	33	5 below.	5	3	2 less.
	2. ENGLAND, NORTH-EAST	37	11	32	7 below.	5	3	1 less.
	3. ENGLAND, EAST	38	26	32	7 below.	4	2	3 less.
	4. MIDLAND COUNTIES	45	26	32	8 below.	4	4	1 less.
	5. ENGLAND, SOUTH	44	25	34	7 below.	4	5	2 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	42	17	34	6 below.	2	2	9 less.
	7. ENGLAND, NORTH-WEST	40	20	32	8 below.	2	5	2 less.
	8. ENGLAND, SOUTH-WEST	51	28	38	6 below.	4	11	3 more.
	9. IRELAND, NORTH	44	26	35	6 below.	4	4	4 less.
	10. IRELAND, SOUTH	52	26	38	4 below.	4	12	3 more.

General Remarks.

Weather very dull, hazy, and gloomy in all the more southern districts, but fairer in the north, and occasionally fine and bright in some parts of Scotland. Temperature again low at the commencement of the period, but rising somewhat decidedly during the last day or two; the average for the week below the mean in all districts. Maxima frequently below 32° except in "England, S.W.," and on the coasts of "Ireland, S." Readings as low as 11° at Durham, 17° at Silloth, and 20° at Stonyhurst on the 28th, while on the 1st February the sheltered thermometer at Glenalmond fell to 21° and that on the grass to 12°. Gradual rise noticed at end of week commenced in south-west and spread slowly over England; maxima on 2nd February were as high as 50° in "England, S.W.," and 45° in "England, S.," but did not exceed 36° or 37° over the "Midland Counties." The reading of 45° reported in the district last mentioned was registered at one station only (Oxford).

Rainfall more than the mean in "England, S.W.," and "Ireland, S.," but less in all other districts. The amounts reported at the various stations in "Ireland, S.," differ considerably; at Dublin, Kingstown, and Roche's Point they are greatly in excess of the mean, but at Parsonstown there is a slight, and at Valentia a considerable deficit. The heavy amounts at the former stations appear to have accompanied the south-easterly gales which beat upon the S.E. coast of Ireland.

Wind rather variable at the commencement of the week; easterly breezes in the south, and south-easterly in the north then succeeded, but at the close of the week south-easterly winds became general. Stiff S.E. gales in the south-west and west on 31st January and 1st February.

The data from which the summary on the preceding page has been calculated are as follow :—

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	39	25	33·3	− 5·3	4	0·18	−0·26
	Aberdeen	39	24	34·1	− 3·6	7	0·37	−0·23
	Glenalmond	45	21	31·0	− 7·3	4	0·29	?
	Leith	45	25	33·4	− 5·0	3	0·22	−0·20
2. ENGLAND, N.E.	Shields	37	17	32·1	− 6·1	5	0·34	−0·06
	Durham	36	11	30·2	− 8·2	6	0·28	−0·17
	Scarborough	36	30	33·9	− 4·4	5	0·27	−0·12
	York	36	24	31·4	− 7·1	5	0·30	−0·13
	Kelstern (Lincolnshire) ℳ	33	26	30·5	− 7·5	4	0·29	−0·14
3. ENGLAND, E.	Yarmouth	35	26	31·7	− 6·4	4	0·11	−0·44
	Cambridge	38	27	32·4	− 6·4	4	0·11	−0·19
	Audley End (Saffron Walden) ℳ	37	27	31·7	− 7·3	3	0·08	?
	Rothamsted	37	27	30·8	− 8·8	3	0·43	−0·17
4. MIDLAND COUNTIES	Nottingham	35	26	31·5	− 7·6	4	0·40	0·00
	Loughborough	35	26	31·2	− 8·3	3	0·36	?
	Leicester	36	27	31·7	− 7·7	3	0·22	?
	Shrewsbury ℳ							
	Hereford ℳ	38	27	31·5	− 9·3	4	0·70	+0·04
	Cirencester	37	26	31·4	− 9·0	4	0·56	−0·25
	Oxford	45	28	32·6	− 7·2	3	0·26	−0·24
5. ENGLAND, S.	London	41	27	32·8	− 7·0	4	0·48	0·00
	Marlborough ℳ	41	25	32·0	− 8·7	4	0·44	−0·31
	Strathfield Turgiss ℳ	42	27	32·4	− 8·0	3	0·32	−0·34
	Dover	41	28	34·4	− 5·3	3	0·57	−0·05
	Hastings	40	27	33·6	− 6·1	3	0·55	−0·05
	Hurst Castle	44	31	35·9	− 4·8	4	0·58	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	41	27	35·2	− 3·8	1	0·02	?
	Glasgow	40	25	33·2	− 5·7	1	0·05	−1·15
	Ardrossan	42	27	34·4	− 4·6	1	0·17	−0·87
	Silloth	39	17	31·9	− 7·2	3	0·23	−0·60
	Douglas (Isle of Man)	40	28	33·6	− 7·4	2	0·33	?
7. ENGLAND, N.W.	Stonyhurst	36	20	31·6	− 8·0	3	0·22	−0·76
	Manchester	36	23	30·9	− 7·9	2	0·53	−0·08
	Liverpool Observatory (Bidston)	37	27	31·5	− 8·7	2	0·23	−0·26
	Holyhead	40	30	34·4	− 7·4	2	0·96	+0·19
8. ENGLAND, S.W.	Pembroke	44	28	35·2	− 7·2	3	1·05	+0·08
	Falmouth	51	32	40·3	− 4·3	5	1·55	+0·65
	Plymouth	50	31	37·9	− 5·0	4	1·15	+0·12
	Prawle Point	47	31	37·4	− 6·0	4	0·54	?
9. IRELAND, N.	Mullaghmore	43	32	35·6	− 5·5	3	0·18	?
	Dunfanaghy	43	31	34·9	− 5·8	6	0·45	?
	Greencastle	44	30	35·0	− 5·0	4	0·60	−0·24
	Armagh	40	31	34·0	− 6·4	3	0·11	−0·57
	Donaghadee	42	26	33·8	− 6·9	5	0·43	?
10. IRELAND, S.	Dublin	42	32	36·2	− 5·5	5	1·22	+0·70
	Kingstown	42	28	36·1	− 5·5	5	1·63	+1·00
	Parsonstown	42	30	35·5	− 5·3	2	0·30	−0·38
	Roche's Point	50	26	40·5	− 2·2	4	2·35	+1·06
	Valentia	52	31	41·7	− 1·6	3	0·30	−1·14
SCOTLAND, N.	Sumburgh Head	42	30	36·7	− 1·9	3	0·04	−0·60
	Stornoway	41	30	36·0	− 3·0	1	0·10	?
	Thurso	45	32	37·1	− 1·5	5	0·22	−0·36
	Wick	43	32	36·7	− 2·1	5	0·26	−0·16
——	Scilly (St. Mary's)	52	37	43·5	− 1·8	4	1·27	+0·28
	Jersey (Noirmont)	48	33	37·9	− 5·1	4	0·83	+0·17

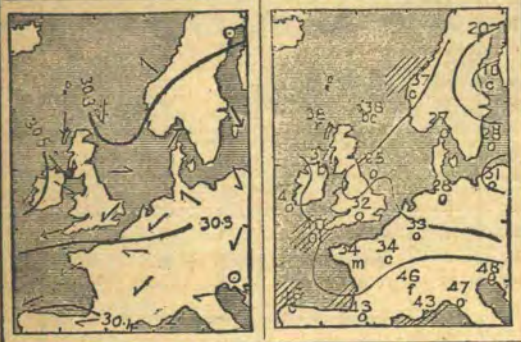
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending February 3, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, January 28.

Weather dull or cloudy generally, with rain at Stornoway, snow at Nottingham, and mist or fog in several places. Slight snow and rain showers in N. and N.W., and also in the S.E. during day.

Temperature risen Ireland and Scotland, fallen England and France; sharp frost in N.E. Readings varying from 41° at Valentia to 25° at York and Shields. Very slight frost over England at night.

Wind east-north-easterly over France, the greater part of England, and the S. of Ireland, westerly to north-westerly in the N., and variable over the North Sea. Light or moderate except at the mouth of the Channel.

Sea rather rough off Scilly and Christiansund.

Barometer falling slowly generally, readings high to the westward of Ireland, and relatively low near the Shetlands and over Spain. A narrow band of high pressure stretching across England, the North Sea, Denmark, and the S. of Sweden. Pressure decreasing except in the N. all day.

Wednesday, January 29.

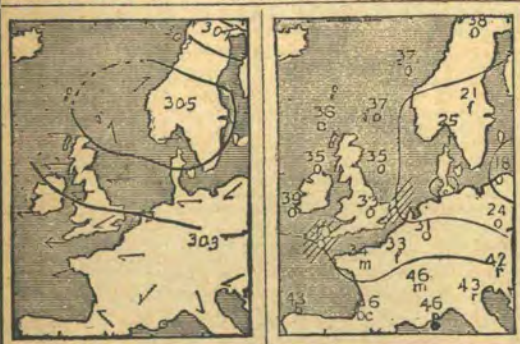
Weather cloudy or dull generally, variable in Scotland, fog, mist, or gloom in several places, and hail showers at Aberdeen. Slight snow and rain showers subsequently in the N. and E.

Temperature risen in the N.E. of England and over Denmark, fallen in most other places. Readings as low as 10° at Hernosand, and 22° in the N. of Denmark, but uniform between 30° and 40° over western Europe generally. Slight frost central England at 8 A.M., and again at night.

Wind easterly (between S.E. and N.E.) over nearly the whole of our area; still light or moderate generally, but blowing freshly in the W., and increasing slightly towards night.

Sea rather rough at Scilly.

Barometer rising over Scandinavia and the N. and N.E. of the British Isles, falling elsewhere; briskly on our S.W. coasts. Readings highest over Norway and Sweden, low off the S.W. of Ireland, and over S.W. France. General rise later on.



Thursday, January 30.

Weather moderately fair in the S.W. of France; still dull or cloudy in all other districts. Haze or fog reported over France, and a gloomy appearance in the S.E. of England. Slight sleet falling in the E. during day.

Temperature changing very little except in Sweden, where it rose quickly. Readings uniform over these Islands, varying from 40° at Scilly to 29° at Oxford. Very slight frost at night at central and south-eastern stations.

Wind easterly generally, but drawing into S.E. in the N. of Scotland; moderate to light except in the S.W. of England. Air harsh and raw. No change during day.

Sea rather rough off Yarmouth and the Scilly Isles.

Barometer rising slightly generally. A large area of high readings lying over the N. of Scotland, the northern parts of the North Sea, and S. of Norway, but pressure relatively low over the Bay of Biscay. Mercury falling generally later in the day.

Friday, January 31.

Weather fine in S. France and at some Scotch stations; still dull or cloudy elsewhere, mist and fog prevailing in France. Heavy rain subsequently falling in the S.W., and slight snow in the N.E.

Temperature slightly lower than on 30th in the N., E., and S.E.; higher elsewhere, varying from 43° on our S.W. coasts to 29° at Oxford. Some frost at night except on our extreme south-western, western, and northern coasts.

Wind easterly at the eastern stations, south-easterly on our W. and N.W. coasts; blowing strongly in the W. generally, and light or moderate elsewhere. Strong gale at Scilly, and moderate to fresh gale over Ireland at night.

Sea rough in the S.W.

Barometer falling briskly in the W. and slightly in most places. Area of low pressure lying at some distance off our S.W. coasts, but readings high and uniform at the eastern and northern stations. Gradients for south-easterly wind increasing during day, especially in the W.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, February 1.

Weather dull generally, with much fog, haze, and gloom at our western stations; rain or snow falling in W. and S.W. Rain general later on; heavy rain and snow in the E. of Ireland and over the Irish Sea, and showers of ice crystals in London.

Temperature risen in W. and N. of the British Isles and in S. France, fallen elsewhere — very considerably in Sweden. Readings ranging from 48° at Scilly to 28° at Oxford, and to minus 2° at Haparanda. Thaw commencing in the S. of England at night.

Wind easterly to south-easterly over nearly the whole of western Europe, very light in force on our E. coast, strong in the W., reaching a fresh to strong gale in the S.W. and a moderate to fresh gale in the N.W.

Sea rough in the W. generally, and high in the extreme W.

Barometer falling everywhere, the decrease amounting to 0·5 in. in the S.W. Large area of high pressure to eastward of North Sea with rather deep depression off our S.W. coasts.

Sunday, February 2.

Weather overcast generally, with snow showers in the N.E., rain at several western and southern stations, and fog or mist in many places. Rain general (but not very heavy) later in day.

Temperature risen in nearly all districts, readings varying from 49° at Scilly, to 31° at Liverpool. Frost disappearing slowly from these Islands in course of day.

Wind southerly to south-westerly over the Bay of Biscay and western half of Channel, south-easterly over Great Britain, and easterly in Ireland. Fresh to strong on most coasts and still blowing a gale in the N. of Ireland, but falling lighter at night.

Sea rough in S.W., W., and N.E.

Barometer recovering slightly in the extreme W., falling rather briskly in all other places. Readings highest over Denmark. A small well marked depression over S. Ireland, travelling south-eastward towards night, and mercury rising west.

Monday, February 3.

Weather fine in some parts of north-eastern Scotland and the W. of Norway, dull elsewhere, with fog, mist, or rain in most districts. Slight rain and intermittent fogs in nearly all parts of country during day, and a considerable fall of snow in London at night.

Temperature fallen in S.W. of England, but risen generally elsewhere, varying from 47° at Scilly to 33° at Nairn. Thermometer as high as 59° at Biarritz, and as low as minus 16° at Haparanda.

Wind still south-westerly over Bay of Biscay but easterly over the whole of the United Kingdom; fresh in the N.W., moderate elsewhere. The winds in our Islands inclined to back to N.E. at night.

Sea rough off Ushant and in the Irish Sea.

Barometer falling over France and the S.E. and S. of England, as well as in Norway and Sweden, rising at our western and northern stations. Readings highest off N.E. of Scotland, low over Channel and the Gulf of Bothnia. Recovery general at night.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

NOTICE.

The Meteorological Office has a number of spare copies of Captain Hoffmeyer's Charts for the year 1875 (Dec. 1874—Nov. 1875). The Charts are in monthly parts, price (post free) 12*s.* 6*d.* per quarter.

The Charts are being continued for the year 1876, at the same rate of subscription.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
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[13376.—150.—2/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 6.] WEEK ENDING MONDAY, FEBRUARY 10, 1879. [*Price 2d.*
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2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
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	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
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	2. ENGLAND, NORTH-EAST	52	29	40	1 above.	6	8	4 more.
	3. ENGLAND, EAST	58	30	43	3 above.	6	14	9 more.
	4. MIDLAND COUNTIES	55	31	42	2 above.	5	12	7 more.
	5. ENGLAND, SOUTH	53	31	42	2 above.	6	16	11 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	50	29	39	0 (average).	6	14	1 more.
	7. ENGLAND, NORTH-WEST	52	31	41	1 above.	6	14	7 more.
	8. ENGLAND, SOUTH-WEST	56	31	45	2 above.	7	17	10 more.
	9. IRELAND, NORTH	50	32	41	0 (average).	6	6	1 less.
	10. IRELAND, SOUTH	54	30	45	2 above.	7	21	13 more.

General Remarks.

Weather very fine in Scotland on the 8th and 9th but continuously cloudy or dull in all other districts, with much rain. Temperature rather low during first day or two, but afterwards rising quickly, so that average for week is above the mean for the time of year in nearly all districts. Maxima at commencement of week below 40° in all districts excepting "England, S.W.," and "Ireland, N. and S.," but subsequently exceeding 50° in almost all places, and reaching 58° at Cambridge on the 9th. Minima about 32° over England and Scotland at first, but afterwards rising to above 40° at all but Scotch stations, where weather was rather cold, especially on the 9th, when frost prevailed. The sheltered thermometer at Glenalmond sank as low as 24°, and that exposed on grass to 18°.

Rainfall less than the mean in "Scotland, E." and "Ireland, N.," but more in all other districts, the excess, however, being very small in "Scotland, W." In the southern and south-western districts, i.e., "England, S. and S.W.," and "Ireland, S.," the rainfall was very heavy.

Wind generally easterly to north-easterly on the 4th, but southerly or south-westerly during remainder of week; strong to a gale in many places on the 5th, 6th, and 7th, and again in the Channel on the nights of the 8th and 9th. On the 10th, however, easterly winds again began to appear in our northern districts, but were light.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	47	25	37·2	− 1·8	0	—	−0·39
	Aberdeen	47	28	37·0	− 1·4	3	0·13	−0·45
	Glenalmond	48	24	34·9	− 4·1	5	0·81	?
	Leith	52	30	39·2	+ 0·3	5	0·19	−0·21
2. ENGLAND, N.E.	Shields	48	32	39·3	+ 0·5	6	0·36	−0·04
	Durham	46	29	38·1	− 0·9	5	0·50	+0·05
	Scarborough	50	32	40·2	+ 1·4	6	0·89	+0·51
	York	52	31	40·2	+ 1·2	7	1·01	+0·58
	Kelstern (Lincolnshire) ℜ	52	29	39·7	+ 1·0	6	1·23	+0·81
3. ENGLAND, E.	Yarmouth	53	30	40·8	+ 2·0	7	1·05	+0·52
	Cambridge	58	31	43·4	+ 3·9	6	1·22	+0·91
	Audley End (Saffron Walden) ℜ	54	31	43·0	+ 3·2	6	1·42	?
	Rothamsted	53	31	42·7	+ 2·6	6	1·76	+1·22
4. MIDLAND COUNTIES	Nottingham	54	31	42·0	+ 2·2	5	0·84	+0·42
	Loughborough	55	32	42·7	+ 2·7	4	0·92	?
	Leicester	55	32	43·0	+ 2·9	5	0·51	?
	Shrewsbury ℜ	54	31	40·8	− 0·3	5	1·66	?
	Hereford ℜ	54	32	43·1	+ 1·7	6	0·83	+0·23
	Cirencester	53	31	42·2	+ 1·2	6	2·12	+1·39
	Oxford	52	32	43·0	+ 2·4	6	1·30	+0·84
5. ENGLAND, S.	London	53	31	43·7	+ 3·2	6	1·48	+1·04
	Marlborough ℜ	53	32	43·4	+ 2·2	6	2·06	+1·39
	Strathfield Turgiss ℜ	52	32	43·5	+ 2·5	6	1·33	+0·77
	Dover	47	31	40·7	+ 0·3	7	1·53	+0·99
	Hastings	48	31	41·2	+ 0·5	6	1·69	+1·16
	Hurst Castle	49	33	41·8	+ 0·8	6	1·66	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	45	29	37·8	− 1·7	6	2·52	?
	Glasgow	48	32	39·0	− 0·3	7	0·80	−0·31
	Ardrossan	50	34	40·5	+ 1·1	7	0·66	−0·27
	Silloth	47	30	39·0	− 0·7	5	1·51	+0·75
	Douglas (Isle of Man)	49	32	40·9	− 0·4	7	1·64	?
7. ENGLAND, N.W.	Stonyhurst	49	31	40·1	0·0	7	1·68	+0·73
	Manchester	51	31	40·2	+ 0·5	5	1·52	+0·94
	Liverpool Observatory (Bidston)	52	32	42·1	+ 1·2	5	1·06	+0·64
	Holyhead	49	34	42·8	+ 0·7	7	1·23	+0·56
8. ENGLAND, S.W.	Pembroke	48	31	42·9	+ 0·1	7	1·36	+0·50
	Barnstaple*	56	34	46·6	+ 3·8	7	1·93	+1·08
	Falmouth	53	34	46·9	+ 2·1	7	2·00	+1·12
	Plymouth	53	33	45·3	+ 2·1	6	2·17	+1·22
	Prawle Point	50	31	43·4	− 0·3	6	1·18	?
9. IRELAND, N.	Mullaghmore	50	35	42·5	+ 1·5	7	0·45	?
	Dunfanaghy	47	34	40·4	+ 0·4	5	0·67	?
	Greencastle	49	32	41·1	+ 0·5	6	0·54	−0·24
	Armagh	49	33	41·0	+ 0·1	6	0·70	+0·06
	Donaghadee	49	32	39·8	+ 1·2	7	0·82	?
10. IRELAND, S.	Dublin	51	36	43·9	+ 2·1	7	1·66	+1·24
	Kingstown	50	36	43·7	+ 1·7	7	1·34	+0·75
	Parsonstown	54	30	43·7	+ 2·4	7	1·88	+1·29
	Roche's Point	53	35	46·1	+ 3·1	7	2·85	+1·68
	Valentia	53	33	46·3	+ 2·7	7	2·67	+1·41
SCOTLAND, N.	Sumburgh Head	45	27	38·0	− 0·5	4	0·50	−0·11
	Stornoway	44	31	43·5	+ 4·1	5	0·51	?
	Thurso	46	28	36·8	− 2·1	5	0·15	−0·42
	Wick	49	26	37·9	− 1·4	3	0·12	−0·30
—	Scilly (St. Mary's)	53	40	48·7	+ 3·2	7	1·77	+0·91
	Jersey (Noirmont)	51	35	44·3	+ 1·3	6	1·27	+0·67

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℜ" are in connection with the Meteorological Society.
* Barnstaple has now been added to the list of stations in "England, S.W."

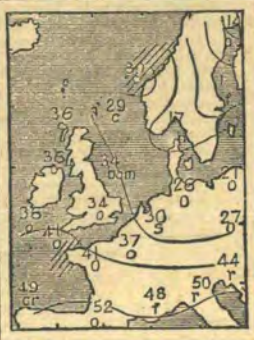
II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending February 10, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, February 4.

Weather fair at some north-eastern stations, but cloudy or dull generally, with mist or fog at several places, and gloom over Ireland. Half an inch of rain collected in S. Ireland, and smaller amounts in other western districts during day.

Temperature fallen almost everywhere, rapidly in Sweden, and briskly in the S.W.; varying from 41° at Scilly to 31° at Aberdeen, and to minus 14° at Haparanda. Thermometer rose in W. and N. during day, but slight frost occurred in E. at night.

Wind northerly to north-easterly over the E. of Great Britain, the Channel, and N. of France, but drawing into E. and S.E. in the W. Light or moderate in force generally. Fresh south-south-easterly breezes over Ireland, and south-westerly gale at Stornoway at night.

Sea rough off the N.W. coast of France and at Christiansund.

Barometer falling in the S.E. of France, rising elsewhere. Area of high pressure lying over our W. and N. coasts, and a shallow well marked depression over central France. Pressure decreasing briskly at Valentia in afternoon.

Wednesday, February 5.

Weather dull, with rain on several parts of our western and northern coasts. Snow at Christiansund; fog or mist in many places. Some rain general during day.

Temperature lower in the E. and S.E. of England and over France than on 4th, higher elsewhere. Readings varying from 48° at Scilly to 32° on our E. coast, 31° at Paris, 25° at Cuxhaven, and minus 20° at Haparanda. Thermometer rising all day.

Wind southerly to south-westerly on all our coasts and over the North Sea, but westerly over the Skager Rack and S. of Sweden; south-easterly in the W. of Norway. Fresh to strong in force generally, and blowing a strong gale at Stornoway. Falling more moderate generally at night.

Sea high at Stornoway, rough at the mouth of the Clyde and on our S.W. coasts.

Barometer risen briskly over E. France and N. Germany, fallen quickly elsewhere. Pressure greatest over central France. Large disturbance off N.W. Scotland, and subsequently moving north-eastward.

Thursday, February 6.

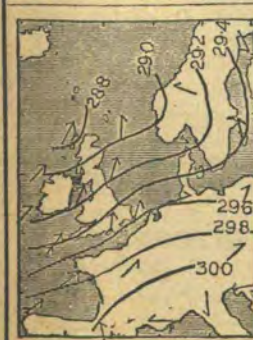
Weather still dull or very cloudy, with rain, mist, or fog in many places. Snow in the N.E. of France. Rain falling generally during day, but sudden clearance of the sky in the evening.

Temperature risen except in S.E. France, the change being about 10° over eastern and south-eastern England and N.E. of France. Mean temperature above the average generally.

Wind southerly to south-westerly on all coasts, blowing strongly in most places, and reaching a fresh gale at Mullaghmore and strong gale at Stornoway. Gales in the Clyde, the S. of Ireland, the Channel, and at Shields at night.

Sea high near Stornoway and Valentia, rough at nearly all the other western and northern ports, moderate to slight elsewhere.

Barometer fallen except in Sweden,—very quickly at our northern stations. A deep depression off the Hebrides, and travelling eastward. Recovery commencing in Ireland during morning, and extending to other stations later.



Friday, February 7.

Weather very changeable; fine at 8 A.M. in N. Ireland, dull elsewhere; rain in W. of France and many parts of England; snow at Haparanda. Fog or mist prevailing in several places. Rain during day except on our N.E. coasts.

Temperature risen slightly, varying from 52° at Scilly to 40° at Thurso. Temperature high all day. Maxima 55° at Roche's Point and Scilly, 51° in London.

Wind southerly to south-south-westerly over these Islands and France; westerly over Denmark and the S. of Norway; east-south-easterly at Christiansund; northerly wind appearing over the Gulf of Bothnia. Wind fresh to strong in force on our coasts, and blowing a gale at Scilly.

Sea high at Scilly and Hurst Castle; rough on all our S.W. coasts and off the Hebrides.

Barometer risen in the E. and S.E. of France; falling in all other places. Large depression lying off the N.W. of Scotland, and secondary disturbances approaching Ireland. Large depression passing north-eastward, and small one eastwards later on.

(*Continued over.*)

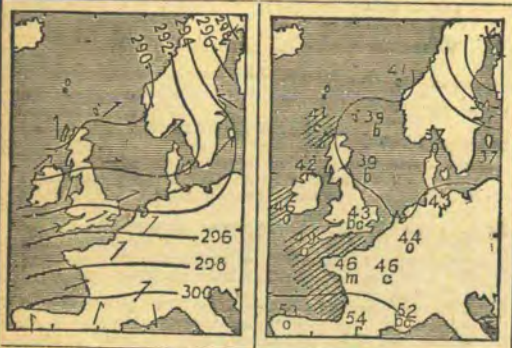
(*Continued.*)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, February 8.

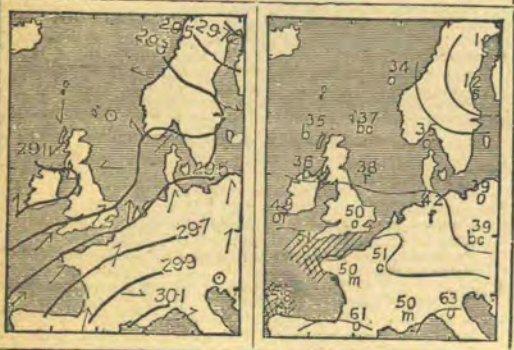
Weather cloudy or dull at most of the Continental stations and on our extreme western coasts, with fog in Denmark, but improved considerably elsewhere. Weather fair till night over greater part of these Islands.

Temperature fallen—slightly over these Islands, but more in Sweden; risen N. Germany; varying from 49° at Scilly to 35° at Aberdeen. General increase of temperature during day, but following night cold in Scotland.

Wind south-westerly to west-south-westerly on most of our own and the French coasts; more variable over Scandinavia, but the northerly wind still holding over the N. parts of Sweden. Wind fresh in force in the S., lighter in the N., and backing; blowing strong gale from S.W. in Channel during night.

Sea rough S. and S.W. and near the Hebrides.

Barometer risen a little over the British Isles and W. of France; fallen elsewhere. A large area of low pressure lying to the northward of British Isles. Fresh disturbance appearing in S.W. at night.



Sunday, February 9.

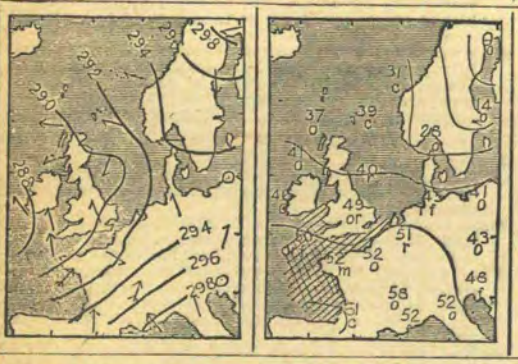
Weather fine in Scotland, overcast in nearly all other places, with rain in the W. and S.W., snow in Sweden, and fog or mist at several stations. Rain subsequently falling generally.

Temperature fallen several degrees over Scotland (where frost prevailed), risen in most other districts. Readings varying over these Islands from 51° at Scilly to 28° at Nairn and Aberdeen. Rising quickly in Scotland during day.

Wind south-westerly over France and all the more southern parts of these Islands, but easterly in the N.E. and north-easterly in the N.W., calm in Scotland. Wind fresh in the S.; strong gale at Coruña. Wind backing southward and south-eastward during day.

Sea rough on all the S. and W. coasts of England and high off Ushant and Coruña.

Barometer rising in Scotland and Norway, falling elsewhere. Readings highest over the Mediterranean, with large area of low pressure to the westward and northward of the British Isles. Fresh depression in S.W. at night.



Monday, February 10.

Weather dull and unsettled over nearly the whole of western Europe, with rain, fog, or mist very generally. Rain at most stations during day.

Temperature recovered considerably in Scotland, and slightly over France, fallen elsewhere. Readings varying from 50° at Scilly to 35° at Nairn. Temperature high and uniform all day and very little range shown.

Wind southerly over France and the greater part of these Islands, but south-easterly to easterly in the N.W. and N. Blowing a strong gale from S.W. over the Bay of Biscay, and a moderate to fresh gale in the Channel at night.

Sea rough to high in the S. and S.W.

Barometer rising over Scandinavia but falling in all the western and southern parts of our area. Large depression to westward of Ireland and small subsidiary over the North Sea; another advancing over England from Bay of Biscay during day. Readings high both over Lapland and the Gulf of Genoa.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⇒ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

NOTICE.

The Meteorological Office has a number of spare copies of Captain Hoffmeyer's Charts for the year 1875 (Dec. 1874—Nov. 1875). The Charts are in monthly parts, price (post free) 12*s.* 6*d.* per quarter.

The Charts are being continued for the year 1876, at the same rate of subscription.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 7.] WEEK ENDING MONDAY, FEBRUARY 17, 1879. [*Price 2d.* [*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Dunfanaghy, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	44	25	35	4 below.	5	15	4 more.
	2. ENGLAND, NORTH-EAST	44	31	36	3 below.	6	13	8 more.
	3. ENGLAND, EAST	52	29	39	1 below.	6	11	7 more.
	4. MIDLAND COUNTIES	52	25	40	1 below.	5	8	3 more.
	5. ENGLAND, SOUTH	52	31	41	0 (average).	6	10	5 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	45	28	37	4 below.	5	9	0 (average)
	7. ENGLAND, NORTH-WEST	45	29	38	3 below.	4	7	1 more.
	8. ENGLAND, SOUTH-WEST	56	34	45	1 above.	6	11	3 more.
	9. IRELAND, NORTH	48	31	40	1 below.	6	8	2 less.
	10. IRELAND, SOUTH	52	32	43	0 (average).	7	14	6 more.

General Remarks.

Weather generally dull and wet, but with a few fine intervals during early part of week, especially in the more northern districts. Temperature a little above the mean in "England, S.W.," and "Ireland, S.," and about the mean in "England, S.," but rather below it in all other districts. Highest readings were at beginning of week, when the maxima varied from 40° in Scotland to rather above 50° in England and the south of Ireland. Temperature then fell gradually, so that by end of week the maxima varied from about 35° in Scotland and central England to 45° or rather more in the southern and south-western districts, the minima at the same time being a little below the freezing point in many parts of the country. The low reading of 25° in the Midland Counties occurred at Shrewsbury on the 13th.

Rainfall about the mean in "Scotland, W.," and a little below it in "Ireland, N.," but a few tenths above it in all other districts. At our more northern stations the fall was usually in the form of snow, and sleet was reported from some of the southern stations also on the 17th. An exceedingly heavy snowstorm occurred in "Scotland, E.," on Sunday, the 16th; at Glenalmond the amount of snow when melted was as much as an inch and three quarters.

Wind at commencement of week generally light or moderate in force; northerly to north-easterly in Scotland, but south-westerly in the more southern districts. On the 13th strong southerly to south-easterly winds set in, blowing a moderate gale at some western and northern stations, and subsequently shifting to E. From the 15th to the 17th two distinct currents prevailed in our neighbourhood, viz., a north-westerly one in the west and south-west, and a south-easterly one in the north and north-east; both were strong, and the south-easterly one increased to a gale in the north-east and north on the 16th and 17th.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	41	25	35·1	− 4·2	2	0·06	−0·28
	Aberdeen	40	28	35·7	− 3·3	6	1·54	+0·99
	Glenalmond	40	29	32·5	− 7·1	6	3·68	?
	Leith	44	32	36·7	− 2·7	6	0·81	+0·44
2. ENGLAND, N.E.	Shields	39	34	36·7	− 2·5	7	1·51	+1·11
	Durham	39	32	34·9	− 4·6	6	1·52	+1·07
	Scarborough	43	33	37·3	− 1·9	6	1·51	+1·15
	York	43	32	36·9	− 2·8	5	0·90	+0·46
	Kelstern (Lincolnshire) ℳ	44	31	35·8	− 3·9	5	0·84	+0·43
3. ENGLAND, E.	Yarmouth	49	32.	37·4	− 2·2	6	1·35	+0·83
	Cambridge	52	30	40·4	− 0·1	6	0·76	+0·44
	Audley End (Saffron Walden) ℳ	51	29	39·7	− 0·8	7	1·24	+0·85
	Rothamsted	51	31	40·2	− 0·3	6	0·96	+0·49
4. MIDLAND COUNTIES	Nottingham	49	31	39·6	− 0·8	5	0·45	+0·02
	Loughborough	49	30	39·6	− 1·0	4	0·52	+0·09
	Leicester	48	32	39·8	− 0·9	5	0·46	+0·04
	Shrewsbury ℳ	45	25	38·0	− 3·7	5	0·36	−0·12
	Hereford ℳ	52	29	40·6	− 1·3	7	0·91	+0·35
	Cirencester	51	30	39·9	− 1·7	6	1·76	+1·14
	Oxford	50	33	41·2	− 0·4	4	0·80	+0·37
5. ENGLAND, S.	London	52	32	41·9	+ 0·7	6	0·69	+0·29
	Marlborough ℳ	51	32	41·3	− 0·4	6	1·25	+0·67
	Strathfield Turgiss ℳ	51	31	41·2	− 0·2	6	0·78	+0·30
	Dover	45	34	40·6	− 0·4	5	1·15	+0·71
	Hastings	47	34	41·0	− 0·5	5	0·95	+0·52
	Hurst Castle	47	37	42·2	+ 0·7	6	0·95	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	43	31	37·2	− 2·6	5	0·73	?
	Glasgow	41	32	36·1	− 3·6	5	0·46	−0·54
	Ardrossan	42	32	36·9	− 3·0	6	0·82	−0·01
	Silloth	43	28	36·5	− 3·9	5	0·45	−0·21
	Douglas (Isle of Man)	45	30	37·5	− 4·2	6	1·80	+0·90
7. ENGLAND, N.W.	Stonyhurst	44	29	37·0	− 3·6	4	0·35	−0·59
	Manchester	44	31	37·4	− 3·3	3	0·57	+0·02
	Liverpool Observatory (Bidston)	44	32	38·5	− 3·2	4	0·61	+0·24
	Holyhead	45	33	40·5	− 2·2	5	1·32	+0·75
8. ENGLAND, S.W.	Pembroke	49	? 34	42·4	− 1·1	5	0·95	+0·21
	Barnstaple	56	38	47·4	+ 4·1	6	0·90	+0·12
	Falmouth	52	37	45·4	+ 0·4	6	1·51	+0·64
	Plymouth	52	37	45·0	+ 1·3	6	1·20	+0·33
	Prawle Point	51	36	44·2	+ 0·4	6	0·74	?
9. IRELAND, N.	Mullaghmore	48	? 35	41·7	0·0	7	1·58	?
	Dunfanaghy							
	Greencastle	46	32	40·2	− 0·9	5	0·31	−0·41
	Armagh	46	32	39·9	− 1·4	6	0·66	+0·06
	Donaghadee	44	31	38·6	− 2·7	5	0·80	?
10. IRELAND, S.	Dublin	47	35	41·8	− 0·4	6	0·75	+0·33
	Kingstown	46	35	41·6	− 0·8	7	1·17	+0·61
	Parsonstown	52	32	42·0	0·0	6	0·73	+0·23
	Roche's Point	52	36	44·5	+ 1·2	7	2·06	+1·04
	Valentia	51	35	45·5	+ 1·8	7	2·04	+0·96
SCOTLAND, N.	Sumburgh Head	41	29	35·0	− 3·4	3	0·03	−0·57
	Stornoway	42	28	37·1	− 2·4	0	—	?
	Thurso	41	25	34·8	− 4·4	4	0·34	−0·23
	Wick	41	25	36·1	− 3·2	3	0·27	−0·15
——	Scilly (St. Mary's)	53	42	47·7	+ 1·9	7	1·28	+0·55
	Jersey (Noirmont)	48	39	43·9	+ 0·5	7	0·89	+0·36

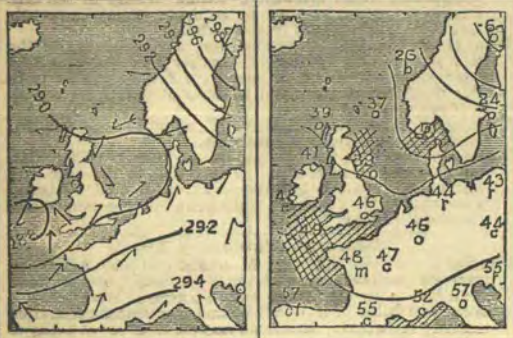
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.
N.B.—Average values for the rainfall have now been obtained for Audley End, Loughborough, Leicester, Shrewsbury, and Douglas (Isle of Man).

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending February 17, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, February 11.

Weather cloudy or dull generally, with haze or fog in several places, particularly the W.; rain over Denmark, and snow over the S. of Scandinavia. Rain or snow subsequently at all the continental and our southern and western stations.

Temperature fallen several degrees over Norway, Sweden, and France, changed little over these Islands, varying from 49° at Scilly to 35° at Nairn. Minima rather low at inland stations at night; frost in some places.

Wind varying considerably in different parts of our area; a fresh south-westerly breeze being reported over France, the Channel, and N. Germany. A north-easterly gale in S. Norway, and a light E. to N.E. wind on our western and northern coasts.

Sea rough or high in the S.W., N.E., and in the Skager Rack.

Barometer falling slightly over France and at Scilly, and briskly over Denmark and Norway, rising slowly elsewhere. Readings highest over Lapland, and depressions shown off our S.W. coasts and over North Sea.

Wednesday, February 12.

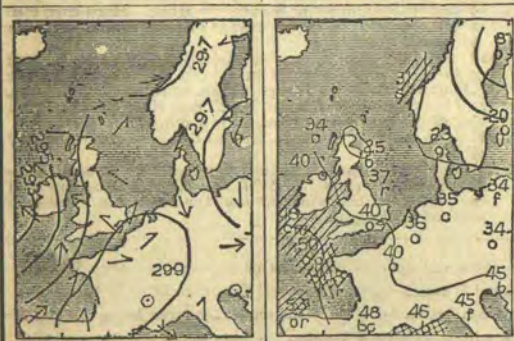
Weather improved considerably, now fair at majority of our stations but still dull on the Continent, with rain and snow over Scandinavia. Rain in S.W., W., and N. during day.

Temperature risen slightly over Scotland and Norway, fallen several degrees elsewhere; varying over these Islands from 47° at Scilly to 33° at Liverpool. Sharp frost in Scotland at night, and slight ground frost in the E. of England.

Wind light to fresh from the northward over these Islands, the North Sea, and the N. of France, fresh to strong from W. in the S. of France, and blowing a strong north-westerly gale at Coruña. Southerly breeze appearing at Valentia at night.

Sea rough off Shields, our S.W. coasts, and the W. of France; high off Ushant.

Barometer risen in all parts of western Europe, rapidly over these Islands. The depressions noticed on 11th have moved, one eastward to Denmark, the second south-eastward to Rochefort. Barometer falling again at Valentia at night.



Thursday, February 13.

Weather fine in N. of Scotland and S. France; dull in nearly all other places, with rain at many western and south-western stations. Rain general during day.

Temperature fallen considerably over Scotland and central France, risen slightly in most other places; varying from 50° at Scilly to 25° at Nairn. Rising briskly in Scotland during day.

Wind backed to S. over the W. of France, the Channel, and S. of England, and to S.E. in the W. and N. Blowing very strongly at the western and south-western stations, and increasing in the E. and N. at night.

Sea rough in W. and S.W., and high off Ushant.

Barometer risen over France, the E. of the British Isles, and to the eastward of the North Sea; fallen fast on our western coasts. Readings highest over France; large depression advancing towards our S.W. coasts. Mercury falling all day.

Friday, February 14.

Weather very unsettled, sky overcast or very cloudy except in the neighbourhood of Denmark; rain falling on our E. coast, snow in N. Scandinavia. No improvement later; rain falling except in the N. and the S.E.

Temperature fallen in the S.W., risen elsewhere,—considerably in Scotland,—varying from 48° at Scilly to 35° at Nairn. Thermometer falling somewhat in the E. of England at night.

Wind still southerly over France and the Channel, but drawing into E. over the greater part of the Kingdom, and into N.E. or N. in the S. of Ireland. Strong in force in the N., light in the S.

Sea rough in the N.E., S., and S.W., and high at the entrance to the Channel.

Barometer rising in the N. and beginning to recover in the W., but still falling generally elsewhere. Depression noticed in the S.W. on 13th passing slowly south-eastwards towards France, and barometer rising in W. till late in the evening.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, February 15. *Weather* fine in Sweden, and locally fine in the S. of Ireland, but dull, wet, gloomy, and unsettled generally. Sleet falling at Ardrossan. Rain occurring subsequently in nearly all places. *Temperature* risen on our N.W. coasts and in the extreme N. of Scotland, fallen elsewhere,—rather briskly in the S.E. Readings varying from 47° at Scilly to 34° at Yarmouth, and 35° at York. Hard frost Sweden. *Wind* shows two distinct circulations; north-westerly in the S. of Ireland, south-easterly to southerly on other parts of our coasts; but easterly in the N. of France, northerly in the W. of that country, and westerly in the S. In the N. it blows strongly. *Sea* is rough in the E., N.W., and S.W., as well as over the Bay of Biscay; at Biarritz it runs high. *Barometer* rising in the W. and N. of France, falling elsewhere,—briskly in the W. Depression of the 13th and 14th moving towards Mediterranean, but fresh disturbance appearing in N. of Ireland, and moving south-eastward and eastward at night.
		Sunday, February 16. *Weather* fine on our S.W. and W. coasts, and also in Sweden, overcast elsewhere, rain at many stations, snow in Scotland, hail at Jersey. Snow and rain general later in day. *Temperature* fallen in W. and S.W. and over Scandinavia, risen slightly elsewhere. Readings varying from 45° at Scilly to 34° at York, and to several degrees below zero in the Gulf of Bothnia. Frost at inland and northern stations at night. *Wind* west to north-west on our western and southern coasts and over France, east to south-east over the North Sea and our eastern and northern stations. Both currents strong, and the south-easterly one blowing a gale in Scotland and on our N.E. coasts. *Sea* high in N.E., S.W., and off Coruña, rough or rather so except in the S.E. *Barometer* falling over western Europe, but rising slightly in Sweden. Readings high in Lapland and N.W. of Spain, disturbances shown over the straits of Dover and off N.W. coasts of Ireland, with a narrow "trough" of low pressure lying from N.W. to S.E. across these Islands; bar falling all day except in the S.
		Monday, February 17. *Weather* overcast or cloudy except in W. Norway and S. Ireland; rain in France, snow and sleet in many parts of our Islands. Snow, hail, or sleet showers subsequently. *Temperature* risen fast in Sweden and slightly over France, fallen elsewhere; readings varying from 43° at Scilly to 31° at Cambridge and 33° at Sumburgh Head. Hard frost still in Scandinavia, and slight frost at our inland and northern stations at night. *Wind* still westerly to north-westerly in W. and S., and easterly to south-easterly in E. and N., variable in the S.E.; fresh to strong except at the south-eastern stations, and blowing a gale over the North Sea, N. of Scotland, and Bay of Biscay. Gale taking off in evening. *Sea* high on the Scotch coasts and off Scilly, rough in the Bay of Biscay. *Barometer* falling except in the extreme N. of Sweden. Depressions still shown in N.W. and S.E., and readings still high both in Lapland and over the Peninsula. Pressure recovering at night.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

NOTICE.

The Meteorological Office has a number of spare copies of Captain Hoffmeyer's Charts for the year 1875 (Dec. 1874—Nov. 1875). The Charts are in monthly parts, price (post free) 12*s.* 6*d.* per quarter.

The Charts are being continued for the year 1876, at the same rate of subscription.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL;
AND E. STANFORD, CHARING CROSS.

VOL. II. No. 8.] WEEK ENDING MONDAY, FEBRUARY 24, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	42	12	30	10 below.	4	3	0 (average).
	2. ENGLAND, NORTH-EAST	45	17	32	8 below.	6	5	1 more.
	3. ENGLAND, EAST	45	19	34	7 below.	5	3	1 less.
	4. MIDLAND COUNTIES	45	19	33	8 below.	6	5	1 more.
	5. ENGLAND, SOUTH	46	17	35	7 below.	5	6	2 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	44	24	34	7 below.	3	2	5 less.
	7. ENGLAND, NORTH-WEST	42	25	35	7 below.	5	4	2 less.
	8. ENGLAND, SOUTH-WEST	49	28	38	6 below.	6	10	4 more.
	9. IRELAND, NORTH	44	28	36	5 below.	4	3	4 less.
	10. IRELAND, SOUTH	47	26	37	6 below.	5	6	1 less.

General Remarks.

Weather very showery and unsettled; much cloud prevailing, interspersed with occasional fine intervals; thunder, lightning, and hail at Jersey about midnight on the 20th. A considerable improvement taking place in the west towards the close of the week. Temperature below the mean in all districts—deficit as much as ten degrees in "Scotland, E.," where some very low readings are reported. Lowest points reached in the shade were 11° at Thurso and 16° at Wick on the 19th, and 18° at Aberdeen and 12° at Glenalmond on the 20th; thermometer exposed on the grass at Glenalmond fell as low as 6° on the 20th and 5° on the 22nd. The coldest weather over England was at the close of the week, when the sheltered thermometer registered 17° at Strathfield Turgiss, 19° at Loughborough, and 22° at many other inland stations.

Rainfall about the mean in "Scotland, E.," a little less in the north-western districts, "England, E.," and "Ireland, S.," but rather more in other places, particularly "England, S.W.," where hail showers were very persistent during the early part of the week. Sleet was frequently reported from our northern and eastern stations, and in London a very heavy snowstorm prevailed for a few hours on the morning of the 21st.

Wind very variable at commencement of week; two distinct currents noticeable, viz., a westerly to north-westerly one in the south and south-west, and a south-easterly one in the north. The latter current gave way on the 19th, but on the 21st it again appeared for a short time, and finally disappeared on the 22nd; northerly to north-easterly breezes then set in. A westerly to north-westerly gale was experienced in the south-west on the nights of the 17th, 18th, and 20th, and strong winds in the west on the 24th.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	39	20	30·5	− 8·9	4	0·22	−0·11
	Aberdeen	38	18	30·0	− 9·4	5	0·72	+0·21
	Glenalmond	37	12	27·2	−12·6	1	0·10	?
	Leith	42	22	32·2	− 7·7	5	0·21	−0·15
2. ENGLAND, N.E.	Shields	38	25	32·8	− 7·0	6	0·67	+0·27
	Durham	45	17	31·4	− 8·5	5	0·71	+0·27
	Scarborough	38	28	32·7	− 7·0	6	0·38	+0·03
	York	43	26	33·8	− 6·3	6	0·34	−0·10
	Kelstern (Lincolnshire) ℳ	39	18	30·1	−10·2	5	0·51	+0·11
3. ENGLAND, E.	Yarmouth	39	29	33·5	− 6·8	5	0·12	−0·40
	Cambridge	45	22	34·7	− 6·2	4	0·33	0·00
	Audley End (Saffron Walden) ℳ	43	20	33·3	− 7·7	6	0·27	−0·10
	Rothamsted	42	19	33·4	− 7·5	5	0·40	−0·02
4. MIDLAND COUNTIES	Nottingham	43	22	33·5	− 7·3	7	0·73	+0·32
	Loughborough	45	19	32·9	− 8·0	5	0·47	+0·03
	Leicester	43	24	33·7	− 7·3	6	0·50	+0·09
	Shrewsbury ℳ	43	23	33·0	− 9·0	6	0·32	−0·16
	Hereford ℳ	45	27	34·2	− 7·8	5	0·55	+0·05
	Cirencester	45	21	32·2	− 9·7	5	0·50	−0·06
	Oxford	44	23	33·7	− 8·3	5	0·64	+0·24
5. ENGLAND, S.	London	46	22	34·6	− 7·1	6	1·26	+0·89
	Marlborough ℳ	45	21	33·3	− 8·7	4	0·46	−0·05
	Strathfield Turgiss ℳ	45	17	33·6	− 8·1	5	0·41	−0·02
	Dover	44	30	35·9	− 5·6	5	0·38	−0·04
	Hastings	44	27	35·5	− 6·7	5	0·46	+0·06
	Hurst Castle	45	28	37·9	− 4·0	6	0·55	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	42	27	33·9	− 6·1	1	0·06	?
	Glasgow	40	26	32·3	− 7·6	2	0·09	−0·79
	Ardrossan	44	24	33·6	− 6·5	4	0·29	−0·45
	Silloth	44	25	34·2	− 6·3	1	0·09	−0·49
	Douglas (Isle of Man)	42	27	34·2	− 7·6	5	0·53	−0·29
7. ENGLAND, N.W.	Stonyhurst	40	26	33·9	− 7·0	5	0·27	−0·61
	Manchester	42	25	33·3	− 7·7	3	0·22	−0·29
	Liverpool Observatory (Bidston)	41	30	34·3	− 7·7	5	0·61	+0·28
	Holyhead	41	33	37·7	− 5·2	5	0·44	−0·09
8. ENGLAND, S.W.	Pembroke	44	32	38·1	− 5·5	6	0·73	+0·04
	Barnstaple	46	28	37·4	− 6·2	6	2·11	+1·41
	Falmouth	45	31	39·1	− 6·1	7	0·98	+0·15
	Plymouth	46	29	38·3	− 5·7	6	0·60	−0·18
	Prawle Point	49	28	39·0	− 5·0	4	0·41	?
9. IRELAND, N.	Mullaghmore	42	28	36·7	− 5·3	4	0·33	?
	Dunfanaghy*							
	Greencastle	44	28	36·9	− 4·5	3	0·27	−0·44
	Armagh	40	31	35·7	− 5·8	5	0·20	−0·35
	Donaghadee	41	30	36·0	− 5·5	5	0·39	?
10. IRELAND, S.	Dublin	41	29	35·7	− 6·7	5	0·28	−0·14
	Kingstown	40	30	36·1	− 6·6	6	0·21	−0·32
	Parsonstown	44	26	34·4	− 7·8	4	0·34	−0·14
	Roche's Point	45	32	38·7	− 5·0	6	0·69	−0·27
	Valentia	47	32	40·2	− 3·6	6	1·55	+0·53
SCOTLAND, N.	Sumburgh Head	42	22	32·2	− 7·2	4	0·62	+0·07
	Stornoway	41	25	34·0	− 5·5	4	0·39	?
	Thurso	42	11	29·3	−10·1	3	0·23	−0·32
	Wick	43	16	31·8	− 7·5	2	0·14	−0·27
——	Scilly (St. Mary's)	46	36	41·5	+ 0·3	7	0·96	+0·31
	Jersey (Noirmont)	45	31	38·5	− 5·2	7	1·29	+0·74

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.
* The observer at Dunfanaghy having removed, the returns formerly received from that station have now ceased.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending February 24, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, February 18.

Weather fair in the S.E. and at some Scotch and Norwegian stations; dull elsewhere, with snow in several places, hail at Scarboro', and rain in W. France. Rain, snow, or hail subsequently falling generally.

Temperature lower than on the 17th; readings varying from 43° at Scilly to 32° at York and 30° at Thurso. Hard frost Scandinavia and Denmark. Maxima low during day in N., and hard frost experienced in N. Scotland in following night.

Wind north-easterly over Denmark, easterly over Norway and the northern parts of the United Kingdom, westerly to north-westerly on our southern coasts and over France; fresh to strong in force in several places, and blowing a gale in Denmark. Strong N.W. gale in S.W. districts at night.

Sea rough or high in the N. and N.E., and in the S. and S.W.

Barometer falling on eastern shores of North Sea; rising elsewhere. Depression off our N.W. coasts, and small but well marked disturbance over N. Germany, the two being united by a band of low pressure across these Islands. Little change during day.

Wednesday, February 19.

Weather changeable; fine at first to the northward of the Firth of Forth, as well as on the S. and S.E. coasts of England; generally cloudy or dull elsewhere. Rainy in London and at Cambridge; snow or hail in several places. Slight rain or snow at most stations later.

Temperature risen S. and W. of England; fallen elsewhere—several degrees in N.E. Scotland, where hard frost prevails. Readings varying from 44° at Scilly to 12° at Thurso. Thermometer rising during day in N. and E.

Wind fresh; westerly over the greater part of England and France, but S.E. at Valentia and S.W. in other parts of Ireland. Calm in Scotland. Wind westerly to south-westerly generally later in day.

Sea rough in the S., and high near Scilly.

Barometer falling slowly at our northern and north-western stations—briskly over Sweden; rising elsewhere. Considerable recovery in N. Germany. Readings highest over Spain, lowest (29·2 ins.) in the W. Several depressions in the northern parts of our area.

Thursday, February 20.

Weather very changeable, amount of cloud varying considerably in different localities, snow falling over central England, hail on our S.W. coasts and rain in W. France. Rain and snow again falling generally later on, heavily in the S.E.

Temperature risen fast in the extreme N.E. of Scotland (where it was so low yesterday) and over Norway, slightly along our E. coast, but the opposite change noted elsewhere. Readings varying from 40° at Scilly to 18° at Aberdeen. Maxima low during day except in N. Scotland.

Wind moderate to fresh from W. on our S. coasts, strong from S.W. in the S.W. of France, and from S.E. on the eastern shores of the North Sea, light and variable on our northern coasts. Fresh to strong north-westerly gale in S.W. in evening, and also in S.W. of France.

Sea rough in S. high off Rochefort.

Barometer risen over Scandinavia, fallen elsewhere—quickly in W. France. Readings highest over Mediterranean. Several small depressions over our Islands and France, travelling in a south-easterly direction.

Friday, February 21.

Weather dull or cloudy, except in the W. of Scotland, with snow showers in the N.E., and very heavy snow in London; rain at Dover and over the Netherlands. Weather unsettled all day.

Temperature changed irregularly, risen fast at Aberdeen and slightly at our western stations and over Denmark; fallen elsewhere. Readings varying from 44° at Scilly to 22° at Thurso. Frost over Scotland.

Wind north-easterly to easterly over the North Sea and our N.E. and N.W. coasts; north-westerly to westerly over France and the Channel. Blowing a fresh to strong gale at entrance of Channel, but lulling during day.

Sea high at the mouth of the Channel, rough in the Bay of Biscay and off Stornoway.

Barometer falling over Scandinavia and the S.E. of England, rising elsewhere. Large area of low pressure in the S.E., with two minima, one near Brighton the other over Holland. Pressure subsequently increasing at all our stations.

(Continued over.)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, February 22. *Weather* generally cloudy or overcast, but fine in the N. of Scotland and a few other localities. Snow falling at a few stations, and occurring in small amounts in most districts during the day. *Temperature* risen several degrees in Sweden, and slightly in S. France, fallen elsewhere, quickly in the N. and E. of Scotland. Readings varying from 43° at Scilly to 30° in London, and to 21° at Nairn and Aberdeen, Rising fast in the N. later on. *Wind* light or moderate in force in nearly all places, from W. to N.W. in the S.W., and from S.E. on our more northern and eastern coasts. Easterly gale reported from the Baltic. Wind changing towards N. and N.E. later. *Sea* rough off Scilly and Rochefort. *Barometer* falling over the S.W. of England and N.W. of France, as well as over S. Sweden, but rising elsewhere. Numerous depressions shown in our neighbourhood, with high readings both over Lapland and Spain.
		Sunday, February 23. *Weather* finer than of late, but snow falling in N. of England and hail at Jersey. Snow falling over the whole of these Islands and N. France during day. *Temperature* several degrees lower than on 22nd over France and the S.E. of England, but higher elsewhere. Readings varying from 42° at Valentia to 27° at Oxford. Hard frost central stations at night. *Wind* northerly over these Islands and France, but easterly in Scandinavia, while calms prevail over Denmark. Fresh or strong in the W., and increasing to a gale at Shields at 10 A.M., and at Scilly in the evening. *Sea* rough at Stornoway, Donaghadee, and Scilly. *Barometer* falling rather briskly in the S.E. France, rising in all other places. Change amounting to 0·6 in. at Valentia when readings were highest. Slight depression off N.E. coast, and moving southward during day.
		Monday, February 24. *Weather* very fine in the S. and S.E., dull or cloudy generally elsewhere. Snow again falling in N. England. Dense fog in London during morning, and slight snow falling in E. and W. during day. *Temperature* fallen considerably over S.E. of England and the Netherlands, little changed elsewhere; varying from 40° in the W. to 22° in London. Weather very cold for time of year everywhere. *Wind* fresh to strong north-easterly over Scandinavia and Scotland, northerly on our western coasts and over France, light and variable over central England. South-easterly breezes in E. later in day. *Sea* rough in N.W. and S.W. *Barometer* falling slightly Wisby, rising in all other places. Readings high off our western coasts and in Lapland, low over England, the North Sea, and France. Depression off our N.E. coast, travelling south-westwards across England during the day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

NOTICE.

The Meteorological Office has a number of spare copies of Captain Hoffmeyer's Charts for the year 1875 (Dec. 1874—Nov. 1875). The Charts are in monthly parts, price (post free) 12*s.* 6*d.* per quarter.

The Charts are being continued for the year 1876, at the same rate of subscription.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[13376.—150.—2/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL;
AND E. STANFORD, CHARING CROSS.

VOL. II. No. 9.] WEEK ENDING MONDAY, MARCH 3, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	50	12	36	4 below.	2	4	0 (average).
	2. ENGLAND, NORTH-EAST	49	23	37	3 below.	4	2	2 less.
	3. ENGLAND, EAST	51	22	36	5 below.	6	3	1 less.
	4. MIDLAND COUNTIES	52	21	37	5 below.	5	3	2 less.
	5. ENGLAND, SOUTH	51	21	37	5 below.	5	4	0 (average.)
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	50	25	38	2 below.	4	8	1 less.
	7. ENGLAND, NORTH-WEST	48	24	38	4 below.	4	5	0 (average).
	8. ENGLAND, SOUTH-WEST	51	24	40	5 below.	4	4	2 less.
	9. IRELAND, NORTH	51	25	39	3 below.	5	4	2 less.
	10. IRELAND, SOUTH	57	25	40	3 below.	3	3	4 less.

General Remarks.

Weather extremely changeable; a good deal of cloud and rain reported, but interspersed with several short periods of very fine weather. Snow and hail showers in the south-east of England at the beginning of the week. Temperature again below the mean for the time of year, but deficit not so large as during previous week. Coldest weather was at beginning of period, when minimum readings in the shade were as low as 25° in Ireland, 21° to 24° over England, and 12° in "Scotland, E.," the value last mentioned being recorded at Glenalmond on the morning of the 26th February. Maximum readings during latter part of week above 50° in very many places, and as high as 57° at Valentia on the 3rd March.

Rainfall about the mean in "Scotland, E.," "England, S.," and "England, N.W.," but less in all other districts; the deficit not very large anywhere, but greatest in "Ireland, S." Some snow over England and Scotland during first day or two.

Wind generally north-easterly on the 25th February, but south-westerly winds appearing in the north of Scotland on the 26th and extending to all parts of the country during the succeeding day. Wind veered to the northward on the 28th but on the 1st March the south-westerly current once more set in and continued till the close of the period. Moderate north-easterly gales in the south-east on the night of the 25th and a south-westerly gale in the more northern districts on the 2nd March.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	50	27	38·0	− 1·4	3	1·00	+0·68
	Aberdeen	47	20	35·1	− 4·7	1	0·09	−0·39
	Glenalmond	46	12	33·4	− 6·4	3	0·48	?
	Leith	50	26	38·2	− 2·1	2	0·12	−0·20
2. ENGLAND, N.E.	Shields	47	28	38·1	− 2·0	4	0·09	−0·31
	Durham	47	23	37·1	− 3·0	4	0·17	−0·27
	Scarborough	45	30	37·5	− 2·6	5	0·26	−0·09
	York	49	25	37·4	− 3·1	2	0·10	−0·32
	Kelstern (Lincolnshire) ℳ	45	26	34·9	− 5·9	5	0·30	−0·09
3. ENGLAND, E.	Yarmouth	47	30	36·3	− 4·5	5	0·19	−0·31
	Cambridge	51	22	36·8	− 4·4	5	0·36	+0·04
	Audley End (Saffron Walden) ℳ	49	27	36·3	− 5·3	6	0·27	−0·09
	Rothamsted	49	25	36·2	− 5·0	6	0·35	−0·04
4. MIDLAND COUNTIES	Nottingham	48	25	36·5	− 4·6	4	0·24	−0·16
	Loughborough	49	22	36·8	− 4·4	6	0·28	−0·14
	Leicester	47	27	37·5	− 3·9	5	0·32	−0·07
	Shrewsbury ℳ	52	21	36·4	− 6·0	3	0·09	−0·35
	Hereford ℳ	50	24	38·1	− 4·2	4	0·13	−0·33
	Cirencester	48	25	36·1	− 5·9	5	0·25	−0·26
	Oxford	49	23	37·2	− 5·0	5	0·48	+0·08
5. ENGLAND, S.	London	51	22	36·4	− 5·8	5	0·36	+0·02
	Marlborough ℳ	50	24	37·2	− 5·3	5	0·60	+0·13
	Strathfield Turgiss ℳ	50	21	36·5	− 5·5	5	0·41	+0·02
	Dover	44	31	36·6	− 5·4	5	0·56	+0·14
	Hastings	46	30	37·1	− 5·6	6	0·27	−0·13
	Hurst Castle	46	29	37·5	− 4·8	4	0·28	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	50	27	38·1	− 1·9	5	1·93	?
	Glasgow	46	25	37·8	− 2·2	4	0·56	−0·21
	Ardrossan	46	26	38·3	− 2·0	4	0·58	−0·09
	Silloth	50	25	38·3	− 2·3	4	0·58	+0·06
	Douglas (Isle of Man)	49	28	38·8	− 3·2	4	0·43	−0·33
7. ENGLAND, N.W.	Stonyhurst	48	27	37·2	− 4·0	5	0·55	−0·28
	Manchester	47	24	35·8	− 5·4	4	0·55	+0·06
	Liverpool Observatory (Bidston)	46	30	38·7	− 3·3	3	0·23	−0·08
	Holyhead	46	32	40·5	− 2·5	5	0·82	+0·32
8. ENGLAND, S.W.	Pembroke	47	28	39·2	− 4·6	3	0·33	−0·33
	Barnstaple	51	24	39·3	− 4·5	5	1·22	+0·56
	Falmouth	50	28	40·3	− 5·0	4	0·23	−0·55
	Plymouth	51	29	38·7	− 5·3	4	0·15	−0·57
	Prawle Point	51	29	39·9	− 4·3	4	0·28	?
9. IRELAND, N.	Mullaghmore	51	25	39·8	− 2·2	5	0·69	?
	Greencastle	48	27	38·9	− 2·5	5	0·52	−0·16
	Armagh	50	26	38·4	− 3·3	5	0·26	−0·24
	Donaghadee	48	29	38·5	− 3·2	3	0·10	?
10. IRELAND, S.	Dublin	50	28	40·3	− 2·3	3	0·12	−0·30
	Kingstown	54	30	40·5	− 2·5	2	0·05	−0·47
	Parsonstown	51	25	38·2	− 4·2	5	0·28	−0·21
	Roche's Point	52	33	41·2	− 2·8	2	0·21	−0·68
	Valentia	57	29	42·0	− 2·0	5	0·63	−0·35
SCOTLAND, N.	Sumburgh Head	47	29	38·6	+ 0·2	7	0·74	+0·25
	Stornoway	50	28	39·2	− 0·4	7	1·03	?
	Thurso	49	26	38·4	− 1·1	5	0·43	−0·09
	Wick	48	24	36·9	− 2·6	3	0·26	−0·14
———	Scilly (St. Mary's)	50	35	43·2	− 3·4	5	0·30	−0·27
	Jersey (Noirmont)	47	31	39·7	− 4·3	4	0·44	−0·16

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending March 3, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, February 25.

Weather fine at majority of our stations as well as in Norway and N. France, cloudy elsewhere, snow falling at York, Yarmouth, and in N. Germany. Snow showers in S.E. all day, but weather dry W. and N.

Temperature risen several degrees in S.E. England, fallen considerably elsewhere. Very uniform over western Europe, between 30° and 37°. Thermometer low all day especially over France, slight frost at night.

Wind north-easterly to northerly everywhere, fresh in force over France and the Channel, and increasing in the S.E. in the evening.

Sea rough in S.E. and S.

Barometer falling briskly in the S. of France, rising in all other places—quickly on our N.E. coasts. Readings highest in N. and W. and rather large depression over the Mediterranean. Pressure giving way in the S.E. England during the day.

Wednesday, February 26.

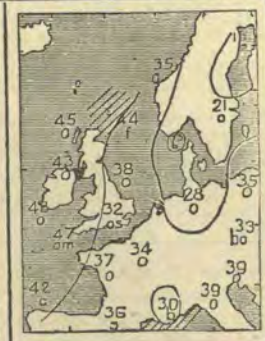
Weather still fair at some northern and north-eastern stations and over Norway, cloudy or dull generally with snow in the S.E. Rain and snow falling subsequently except in the S.W.

Temperature somewhat higher than on 25th, except in Denmark and N. Germany, varying from 41° at Scilly to 22° at Aberdeen, and to 30° at Toulon. Thermometer rising quickly in W. during day.

Wind south-westerly in the N. of Scotland and Ireland still northerly to north-easterly in most other places, strong in the S. and blowing a moderate gale at Yarmouth, a fresh gale at Cuxhaven and strong gale at C. Gris Nez. The south-westerly wind in N. spreading southward later.

Sea rough in the E. and S. and high at Cape Gris Nez.

Barometer falling over central Europe, Scandinavia, and our northern and north-western stations, rising in the S. and W. Readings high over S. Ireland and N. Sweden, with a band of high pressure uniting the two regions, low to the north-westward of Scotland and over Switzerland. Falling except in S.E. at night.



Thursday, February 27.

Weather dull or cloudy at most stations, fog in several places, rain at Mullaghmore, and snow at Cambridge, London, Lyons, and Biarritz. Rain or snow subsequently falling, except over Scotland.

Temperature little changed over France and the S.E. of England, but risen considerably in the N. and W. Readings varying from 48° at Valentia to 32° in London. Brisk rise in the N.E. and S.E. later on.

Wind westerly over the greater part of the United Kingdom, but northerly over France, south-easterly in Norway, and north-easterly in Sweden. Fresh to strong in force in the Baltic and in the Scilly, Hebrides, and Shetland Isles. Little change later.

Sea moderate to slight, except at Sumburgh Head.

Barometer falling rather briskly in the N. of our Islands and over Scandinavia, rising over France. Readings highest off the Spanish coast, lowest to the north-westward of Scotland. Falling everywhere during day.

Friday, February 28.

Weather very fine in Scotland, dull or cloudy elsewhere, with rain at Shields, Scilly, and the Welsh stations, fog in the S. and E. of England and N. of France, rain occurring later, except in the N.W. and N.E.

Temperature fallen considerably in W. and N., risen elsewhere, —several degrees in the S.E. of England and W. of France. Readings low, varying from 45° at Scilly to 34° at Aberdeen and 38° at Yarmouth. Temperature rising slightly during day.

Wind south-westerly over Scotland, the N. of Ireland, and at Christiansund, but northerly in the S. of Ireland, and southerly to south-westerly over France and the S.E. of England, generally light or moderate in force except at Scilly and in the W. of Norway. No change later.

Sea rather rough at Scilly and Christiansund, moderate to slight elsewhere.

Barometer fallen generally, but beginning to recover again in the N. Readings highest over central France, lowest to the northward of Scotland, but small depressions over Bay of Biscay and British Isles. Pressure increasing later.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, March 1. *Weather* very foggy over the Netherlands and N. Germany, overcast at our south-eastern stations, fair to fine in most other places. Slight rain in the extreme W. and N. during day, and snow over Scandinavia. *Temperature* risen several degrees in N. Germany and the N.E. of France, changed very little in the S. of that country, fallen elsewhere. Readings varying from 45° at Scilly to 29° at Wick. *Wind* northerly at nearly all our own and the French stations, but a southerly breeze appearing in the extreme N.W. of Ireland and over Scotland. Wind backing towards W. generally, later in day. *Sea* moderate to smooth except at Scilly and Rochefort. *Barometer* rising in all parts of western Europe at 8 A.M., but very slightly at Stornoway. Pressure highest off our S.W. coasts, with a slight depression over the N.E. of France, and a second but more important approaching the Hebrides. Barometer falling Scotland at 6 P.M.
		Sunday, March 2. *Weather* fine over greater part of England, the E. of Ireland, and N. France; cloudy or dull elsewhere; rain Shetlands and W. Norway. Rain during day except in S., S.E. and N.E. *Temperature* risen fast at our western and northern stations; fallen in the S.E. of England, and W. and N. France; sharp frost in London. Maxima during day 51° at Kingstown, London, and Cambridge, and between 45° and 50° elsewhere. *Wind* south-westerly over these Islands, the North Sea, and Norway, but north-easterly at Cuxhaven, northerly at Lyons, and easterly over the Bay of Biscay; fresh to strong in the extreme W. and N., and blowing a gale at Sumburgh Head. Gale in N. later. *Sea* rough to the westward of Ireland and Scotland; high near the Shetlands. *Barometer* risen over France, the S. of England, N. Germany, and S. of Scandinavia; fallen in the W. and N. Anti-cyclone lying over France and the Channel, with a depression near Christiansund. Pressure giving way everywhere at night.
		Monday, March 3. *Weather* fine in Scotland and at some of our eastern and south-eastern stations; dull in nearly all other places, rain falling in some parts, and much fog prevailing over N. Germany and the Netherlands. Rain in S. during day and in N. during night. *Temperature* risen in the W. of France, and S. and S.E. of England; fallen elsewhere—quickly in Scotland. Readings varying from 44° at Scilly to 34° at Thurso and Cambridge. Very slight frost in the S.E. at night. *Wind* westerly to south-westerly over our coasts, and southerly over Scandinavia, but more variable in France; light or moderate in force except at a few exposed stations. Wind veering somewhat during day. *Sea* rough at Scilly, Mullaghmore, and in the extreme N.E. *Barometer* rising very slightly in Sweden; falling in all other places. Readings still highest over France, and lowest near Christiansund, but some small subsidiary disturbances shown crossing our area.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⇒ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

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3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
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	2. ENGLAND, NORTH-EAST	59	30	45	4 above.	2	1	3 less.
	3. ENGLAND, EAST	64	26	44	3 above.	3	1	3 less.
	4. MIDLAND COUNTIES	61	25	44	2 above.	2	1	3 less.
	5. ENGLAND, SOUTH	63	27	43	1 above.	2	1	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	54	30	44	3 above.	5	9	1 more.
	7. ENGLAND, NORTH-WEST	56	31	44	2 above.	3	3	2 less.
	8. ENGLAND, SOUTH-WEST	55	31	44	1 below.	3	2	5 less.
	9. IRELAND, NORTH	55	34	45	3 above.	5	6	1 more.
	10. IRELAND, SOUTH	57	32	46	3 above.	3	2	5 less.

General Remarks.

Weather at commencement of week was cloudy and unsettled generally, but improvement commenced in the south-east on the 5th and gradually spread, first to our western, and afterwards to our northern stations. On the 6th, 7th, and 8th brilliant weather was prevalent, with fogs at some places in the early mornings, but on the 9th cloud appeared in the north and west, extending to the south and east on the following day. Temperature a little below the mean in "England, S.W.," but above it in all other districts, the excess being greatest in "Scotland, E." and "England, N.E." A steady rise occurred in most places until the 9th, by which time the midday readings at the English stations were very high, 62° being reported as the maximum at Audley End and Strathfield Turgiss, 63° in London, and 64° at Cambridge. Several sharp night frosts occurred at the same time, the thermometer falling to 27° in many parts of England, to 26° at Audley End, and to 25° at Shrewsbury: the grass temperatures were, of course, still lower. The weather during the daytime became decidedly colder on the 10th, but, owing to the prevalence of cloud, the night minima reported were higher than those previously experienced.

Rainfall a little in excess of the mean in Scotland and "Ireland, N.," but less in other districts. In most places the falls occurred either at the beginning or end of the period, there being an almost entire absence of rain on the 7th, 8th, and 9th.

Wind strong to a gale from the south-westward at all but the south-eastern stations on the 4th and 5th, veering to W. and falling moderate on the 6th. Calms or variable airs were reported from many places on the 7th, but on the 8th and 9th southerly breezes began to reappear in the W. and N., while on the 10th westerly winds were reported generally.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	53	33	43·3	+ 3·9	6	1·20	+0·88
	Aberdeen	52	34	43·5	+ 3·4	3	0·27	−0·20
	Glenalmond	50	31	41·5	+ 1·6	3	1·23	?
	Leith	54	33	45·3	+ 4·9	3	0·30	+0·01
2. ENGLAND, N.E.	Shields	55	33	44·6	+ 4·3	1	0·01	−0·39
	Durham	56	31	45·1	+ 4·7	1	0·08	−0·36
	Scarborough	54	36	45·2	+ 4·7	1	0·01	−0·34
	York	57	30	44·4	+ 3·7	3	0·12	−0·27
	Kelstern (Lincolnshire) ℳ	59	32	44·1	+ 3·0	2	0·04	−0·32
3. ENGLAND, E.	Yarmouth	57	31	42·7	+ 1·4	2	0·06	−0·42
	Cambridge	64	28	45·2	+ 3·7	1	0·06	−0·26
	Audley End (Saffron Walden) ℳ	62	26	44·3	+ 2·4	3	0·21	−0·14
	Rothamsted	60	27	43·9	+ 2·3	6	0·21	−0·17
4. MIDLAND COUNTIES	Nottingham	61	26	45·0	+ 3·7	1	0·06	−0·34
	Loughborough	59	27	44·8	+ 3·4	2	0·11	−0·29
	Leicester	57	27	44·4	+ 2·7	2	0·07	−0·31
	Shrewsbury ℳ	56	25	43·7	+ 1·3	2	0·05	−0·34
	Hereford ℳ	57	27	43·7	+ 1·2	1	0·06	−0·36
	Cirencester	58	27	41·9	− 0·2	4	0·48	+0·01
	Oxford	58	29	43·5	+ 1·3	2	0·16	−0·22
5. ENGLAND, S.	London	63	30	44·6	+ 2·1	2	0·13	−0·20
	Marlborough ℳ	60	30	43·7	+ 1·0	3	0·07	−0·39
	Strathfield Turgiss ℳ	62	27	44·2	+ 1·8	0	—	−0·37
	Dover	50	35	41·6	− 0·9	3	0·07	−0·36
	Hastings	53	33	44·0	+ 1·0	4	0·14	−0·27
	Hurst Castle	52	31	41·7	− 1·0	2	0·06	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	54	30	43·5	+ 3·4	6	1·80	?
	Glasgow	52	37	44·9	+ 4·7	6	1·09	+0·43
	Ardrossan	51	35	44·3	+ 3·8	5	0·88	+0·28
	Silloth	54	32	43·5	+ 2·7	5	0·59	+0·12
	Douglas (Isle of Man)	52	32	43·4	+ 1·1	3	0·10	−0·58
7. ENGLAND, N.W.	Stonyhurst	54	32	43·6	+ 2·1	4	0·75	−0·04
	Manchester	56	31	43·6	+ 2·0	2	0·29	−0·19
	Liverpool Observatory (Bidston)	55	32	45·3	+ 3·1	3	0·11	−0·21
	Holyhead	52	38	44·7	+ 1·5	2	0·11	−0·37
8. ENGLAND, S.W.	Pembroke	49	37	44·0	0·0	3	0·46	−0·16
	Barnstaple							
	Falmouth	53	35	44·8	− 0·7	4	0·19	−0·54
	Plymouth	55	31	42·4	− 1·9	2	0·03	−0·64
	Prawle Point	53	36	44·6	+ 0·1	3	0·08	?
9. IRELAND, N.	Mullaghmore	53	37	45·5	+ 3·5	4	0·78	?
	Greencastle	55	34	44·7	+ 3·1	5	1·03	+0·36
	Armagh	54	35	44·8	+ 2·9	6	0·36	−0·10
	Donaghadee	52	35	44·1	+ 2·3	5	0·22	?
10. IRELAND, S.	Dublin	56	38	46·7	+ 3·9	2	0·05	−0·37
	Kingstown	57	33	46·5	+ 3·5	2	0·03	−0·49
	Parsonstown	57	32	44·6	+ 2·1	5	0·31	−0·20
	Roche's Point	54	35	46·4	+ 2·1	3	0·10	−0·74
	Valentia	55	35	46·5	+ 2·3	4	0·47	−0·49
SCOTLAND, N.	Sumburgh Head	49	26	39·1	+ 0·8	6	0·76	+0·33
	Stornoway	51	34	41·0	+ 1·5	7	1·17	?
	Thurso	54	30	41·5	+ 2·0	7	0·82	+0·33
	Wick	53	29	41·3	+ 1·8	6	0·43	+0·06
——	Scilly (St. Mary's)	54	42	47·7	+ 6·9	4	0·17	−0·35
	Jersey (Noirmont)	56	38	45·7	+ 1·6	2	0·07	−0·57

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending March 10, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, March 4.

Weather fine on both sides of the Channel, the S.E. of England, and N. Germany, cloudy elsewhere, rainy in N. Scotland, foggy in some places. Rain falling subsequently, except over the central and eastern parts of England.

Temperature fallen in the S.E., risen elsewhere,—considerably in the W. and N.; varying from 50° at Valentia and 49° at Stornoway, to 36° in the S.E. Thermometer rising to about 50° in the northern and inland parts of England during the day, but not on our S. coasts.

Wind south-westerly generally, drawing into S.E. at Skudesnaes and in the Shetlands; light in force in the S.E., but strong to a gale in the W. and N. Wind veering westward during day, and still very strong.

Sea high in the W., N.W., and N.; rough in the S.W.

Barometer rising in the S. and S.E. of England, and on the Continent generally, falling elsewhere,—very quickly in the N.W. of Scotland. Deep depression advancing towards Hebrides, and spreading over our Islands. Disturbance moving north-eastward.

Wednesday, March 5.

Weather cloudy or dull except in S.W. and S. of France, with rain in the extreme W. and N., fog or haze in the S.E. and S. Slight rain falling subsequently, almost all over these Islands and the N. of France.

Temperature higher than on 4th, except in N. of Scotland,—increase very considerable over S.E. of England. Readings varying from 53° at Kingstown, to 43° at Dover and 37° at Nairn and Wick. Maxima between 50° and 55° in many parts of England, and reaching 58° at Cambridge.

Wind light easterly over southern France, south-westerly over the greater part of these Islands, and south-easterly to easterly in N. Scotland. Gales blowing at Valentia and Shields, and wind strong generally.

Sea rough in W. and S.W., generally, high off Valentia.

Barometer falling except over France. Readings highest at the French stations, depressions shown advancing by the W. of Ireland and the Hebrides to Norway, from the south-westward, with a subsidiary disturbance off the E. of Scotland.

Thursday, March 6.

Weather very fine over these Islands, but dull in many parts of the Continent. Slight rain in N. during day, but sky clear in S.

Temperature fallen fast at our stations, but changed little and irregularly on the Continent, varying from 40° at Scilly, to 30° in the Shetlands. Maxima generally about 50°, or a little above, but reaching 58° at Cambridge.

Wind westerly on most of our coasts, but north-easterly to easterly over western part of Channel. Wind backing towards S. in N.W. during day, but afterwards veering again to W. Fresh or strong in N. and N.W.

Sea rough in the W. of Norway.

Barometer rising except in Sweden. Readings highest over France and the depressions noticed on 5th moving eastward over Scandinavia. Some local disturbances over the S. of England. Fresh disturbances of larger type appearing in N. Scotland and causing brisk fall of barometer there in afternoon.

Friday, March 7.

Weather exceedingly fine over the whole of western Europe, but with mist or fog at several stations. The only rainfall occurring during day was in the extreme N. of Scotland and at Christiansund.

Temperature fallen over France and our southern stations, risen in the N. Morning readings low in the S.E., but very uniform. Maxima during day 56° in London, 57° in York, 58° at Nottingham, and 60° at Cambridge. Rapid fall at night.

Wind easterly over France and the Channel, westerly over all the more northern parts of the United Kingdom, the North Sea, and Scandinavia. Calms and light airs prevailing in S.E. Wind fresh in N. all day.

Sea rough off the Shetlands and Hebrides.

Barometer falling slightly in the extreme S. and S.W. of France, rising elsewhere. Readings uniformly high (30 4 and above) over Ireland, England, and France, low over N. Scandinavia. Pressure giving way a little in S.W. at night.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	

Saturday, March 8.

Weather cloudy or dull in the extreme N. of Scotland and at most Scandinavian stations, very fine elsewhere though dense fog prevailing in some parts of England. Very fine day, scarcely any rain.

Temperature fallen fast over central and eastern England, risen or changed very little elsewhere; frost at inland stations. Readings varying from 48° at Scilly, to 27° at Nottingham. Diurnal range as much as 30° over central England where maxima rose to 58° or 60°.

Wind easterly over France, south-easterly Ireland, south-westerly Scotland, and westerly over North Sea and Scandinavia. Light or moderate on most coasts; calms in the S.E.; little change later on.

Sea rough in N. and off Mullaghmore and the Scilly Isles.

Barometer falling somewhat over the N.W. of France and our S.W., W., and N.W. coasts, rising elsewhere. Readings highest over Holland and W. of Germany, lowest near Christiansund. Pressure giving way everywhere later.

Sunday, March 9.

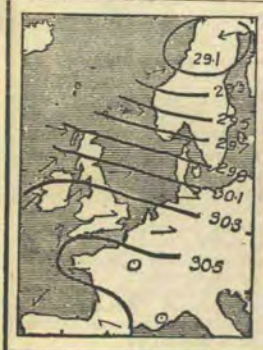
Weather cloudy or dull at our extreme south-western stations, in the S. of Scotland, and over the greater part of Scandinavia, exceedingly fine elsewhere; slight rain in extreme W. and N. later.

Temperature rising briskly over eastern and central England, changing rather irregularly in other districts, readings varying from 50° at Kingstown to 35° at Nottingham. Thermometer subsequently rising above 60° at inland stations to 64° at Cambridge.

Wind easterly over France, south-westerly to westerly over the British Isles and North Sea, but drawing into S.E. at Skudesnaes. Moderate to light generally, but fresh in the N.W. and N. Westerly gale in N. Scotland; strong westerly winds in N. of England during day.

Sea rough N.W. and N., moderate to slight on our other coasts.

Barometer rising slightly in S.W. and over W. France, falling in all other places. Readings highest over France, lowest to the northward of Scotland. Large depression to the N. of British Isles, moving north-eastward, and pressure recovering at 6 P.M.



Monday, March 10.

Weather still fine over France, but cloudy elsewhere; fog or mist in several places, sleet at Christiansund. Sky clearing in S.E. during day, but clouding again at night. Rain occurring generally later on, hail and snow in far N.

Temperature higher at 8 A.M. over central England than on the 9th, lower elsewhere, varying from 48° at Valentia to 38° at Wick and in London. Maxima only about 56° at inland stations to-day.

Wind still easterly over France but westerly over nearly the whole of these Islands, the North Sea, and Scandinavia. Moderate in the S. but fresh in the W., and blowing a gale in the Shetlands and over Norway.

Sea rough off the Scilly and Shetland Isles, moderate to slight elsewhere.

Barometer rising W. France, falling elsewhere, rapidly over Sweden. Large depression shown over Scandinavia, and pressure varying from 30·5 in. in W. France to 29·0 in. over the Gulf of Bothnia. Small disturbance crossing these Islands in evening.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 11.] WEEK ENDING MONDAY, MARCH 17, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Greencastle, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	54	18	32	8 below.	5	11	7 more.
	2. ENGLAND, NORTH-EAST	56	16	37	4 below.	5	4	0 (average).
	3. ENGLAND, EAST	57	27	41	1 below.	4	2	2 less.
	4. MIDLAND COUNTIES	57	20	41	1 below.	4	3	1 less.
	5. ENGLAND, SOUTH	55	28	42	2 below.	3	1	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	54	22	37	4 below.	6	13	6 more.
	7. ENGLAND, NORTH-WEST	52	26	40	2 below.	6	9	5 more.
	8. ENGLAND, SOUTH-WEST	56	27	44	0 (average).	3	2	4 less.
	9. IRELAND, NORTH	51	28	40	2 below.	6	9	3 more.
	10. IRELAND, SOUTH	56	25	45	2 above.	5	7	0 (average).

General Remarks.

Weather generally fair during the early part of the week, but more cloudy towards its close. A considerable quantity of snow in Scotland and the north of England and much rain in "England, N.W.," and "Ireland, N." Temperature about the mean in "England, S.W.," but below it in all other districts—the deficit as much as eight degrees in "Scotland, E." The maximum for the week occurred very generally on Wednesday the 12th, when the thermometer rose a little above 55° over England and "Ireland, S.," but at many of the English stations a second maximum was observed on Sunday the 16th, and in some places the thermometer rose as high on that occasion as before. The lowest minima were recorded about the middle of the period, i.e., from the 13th to the 15th, and were as low as 22° at Glasgow Silloth, and Nairn, 20° at Shrewsbury and Shields, 19° at Leith, 18° at Glenalmond, and 16° at Durham.

Rainfall a little less than the mean in most of the English districts, but considerably more in "Scotland, E.," and "England, N.W." In Scotland snow fell almost every day, and on the morning of the 17th it lay nine and a half inches deep in the open at Glenalmond.

Wind westerly at commencement of week, veering to N.W. and blowing gale on our north and east coasts on the 12th. Variable breezes prevailed during next day or two, but on Saturday south-westerly winds set in except over the north of Scotland. In the latter region an easterly breeze showed itself, and, increasing in strength, spread gradually to the southward, with cold weather, and displaced the south-westerly breeze. On Monday, however, it began to veer to S.E. very generally.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	44	22	30·9	− 8·5	4	1·02	+0·72
	Aberdeen	45	27	33·7	− 6·6	5	1·27	+0·84
	Glenalmond	51	18	30·9	− 9·1	6	1·15	?
	Leith	54	19	34·2	− 6·4	6	0·91	+0·64
2. ENGLAND, N.E.	Shields	53	20	36·6	− 4·1	4	0·35	0·00
	Durham	55	16	35·4	− 5·3	6	0·45	+0·02
	Scarborough	56	29	38·8	− 1·9	4	0·46	+0·08
	York	55	24	38·1	− 2·8	5	0·45	+0·07
	Kelstern (Lincolnshire) ℳ	52	26	37·4	− 4·0	5	0·31	−0·05
3. ENGLAND, E.	Yarmouth	54	29	39·4	− 2·4	5	0·34	−0·08
	Cambridge	57	27	41·5	− 0·3	4	0·20	−0·11
	Audley End (Saffron Walden) ℳ	55	28	40·7	− 1·6	3	0·14	−0·18
	Rothamsted	54	27	41·5	− 0·7	4	0·17	−0·22
4. MIDLAND COUNTIES	Nottingham	57	27	40·1	− 1·6	5	0·51	+0·09
	Loughborough	56	27	40·7	− 1·0	5	0·27	−0·13
	Leicester	55	28	40·3	− 1·5	4	0·16	−0·20
	Shrewsbury ℳ	57	20	40·5	− 1·9	4	0·61	+0·29
	Hereford ℳ	54	27	42·9	+ 0·1	5	0·42	+0·04
	Cirencester	54	27	40·2	− 2·3	4	0·23	−0·21
	Oxford	54	29	40·9	− 1·5	3	0·11	−0·27
5. ENGLAND, S.	London	55	30	42·4	− 0·3	2	0·12	−0·21
	Marlborough ℳ	53	28	40·9	− 2·1	4	0·15	−0·29
	Strathfield Turgiss ℳ	55	29	41·6	− 0·8	2	0·08	−0·26
	Dover	49	32	40·7	− 2·0	1	0·02	−0·42
	Hastings	49	31	41·1	− 2·6	3	0·10	−0·33
	Hurst Castle	52	33	42·2	− 1·1	3	0·10	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	47	23	34·8	− 5·6	5	1·98	?
	Glasgow	52	22	34·5	− 6·0	6	1·46	+0·90
	Ardrossan	50	24	37·9	− 3·1	6	1·15	+0·60
	Silloth	53	22	38·6	− 2·6	6	0·65	+0·23
	Douglas (Isle of Man)	54	29	39·3	− 3·4	6	1·38	+0·76
7. ENGLAND, N.W.	Stonyhurst	49	27	38·9	− 2·9	6	1·19	+0·94
	Manchester	52	26	38·8	− 2·9	6	1·08	+0·60
	Liverpool Observatory (Bidston)	51	29	40·6	− 1·7	5	0·61	+0·29
	Holyhead	52	33	42·9	− 0·3	5	0·71	+0·25
8. ENGLAND, S.W.	Pembroke	49	34	43·6	− 0·6	5	0·38	−0·23
	Barnstaple	56	28	44·8	+ 0·9	3	0·30	−0·28
	Falmouth	54	34	45·6	− 0·2	4	0·21	−0·46
	Plymouth	55	27	43·3	− 1·2	1	0·01	−0·63
	Prawle Point	56	30	43·5	− 1·1	3	0·09	?
9. IRELAND, N.	Mullaghmore	50	31	40·7	− 1·6	6	0·99	?
	Greencastle	51	28	39·1	− 2·5	6	0·64	0·00
	Armagh	51	28	39·3	− 2·9	5	0·94	+0·52
	Donaghadee	50	29	39·7	− 2·3	6	1·01	?
10. IRELAND, S.	Dublin	55	32	44·0	+ 1·0	5	1·03	+0·62
	Kingstown	55	31	43·6	+ 0·6	5	1·04	+0·52
	Parsonstown	54	25	43·3	+ 0·6	6	0·65	+0·10
	Roche's Point	56	35	47·5	+ 2·9	3	0·35	−0·45
	Valentia	54	39	47·1	+ 2·6	5	0·35	−0·59
SCOTLAND, N.	Sumburgh Head	39	18	28·7	− 9·7	5	0·12	−0·22
	Stornoway	43	25	32·1	− 7·4	3	1·21	?
	Thurso	44	22	32·9	− 6·7	7	0·72	+0·27
	Wick	46	21	30·9	− 8·5	6	1·07	+0·76
——	Scilly (St. Mary's)	55	39	46·8	+ 4·5	5	0·33	−0·15
	Jersey (Noirmont)	51	32	43·0	− 1·6	1	0·01	−0·73

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending March 17, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, March 11.

Weather fine over greater part of these Islands, but cloudy on our extreme western coasts, the W. of Norway, and over France, with rain at Greencastle and in the Netherlands. Rain, snow, and hail in W. and N. during day.

Temperature risen over N. France and S. England, fallen elsewhere,—many degrees in the N.E. Readings varying from 48° at Scilly to 33° on the Scotch coasts, and 28° at Nairn. Thermometer rising above 50° in W. and N. subsequently, and to 56° at Prawle Point.

Wind westerly to north-westerly in nearly all parts of our area, and varying in force from a very light breeze in Ireland to a fresh or strong gale over Scandinavia. Wind backing to S. and S.W. in the W. at night.

Sea rough in extreme N. and at Scilly, moderate or slight elsewhere.

Barometer highest over the Bay of Biscay, lowest over Lapland; falling over N. France, N. Germany, and Denmark, rising elsewhere, briskly in N.W. Pressure giving way in W. and N. at 6 P.M.

Wednesday, March 12.

Weather unsettled, sky cloudy generally, with rain and snow in many parts of Scotland, and mist or fog in the S. Snow showers occurring at most of the northern stations during day.

Temperature fallen fast over Norway and Sweden, and less quickly in N. France and our S. coast; risen over the greater part of these Islands, especially in the N.W. and N.E. Maxima between 50° and 55° over England and Ireland.

Wind easterly to north-easterly in the N. of Scotland, but westerly to north-westerly in nearly all other places: fresh or strong in force generally, and blowing a severe north-easterly gale at Stornoway, and a N.W. gale at Shields. Wind veering northward later, blowing a gale over the Irish Sea, and a severe N.W. gale over the North Sea.

Sea high near Stornoway and Christiansund, rough off Mulinghmore and Scilly, and subsequently on our N.E. and N.W. coasts.

Barometer highest over the Bay of Biscay, lowest in the Gulf of Bothnia; complicated disturbance over Scotland at 8 A.M., subsequently travelling rapidly to the south-eastward.

Thursday, March 13.

Weather fine over greater part of British Isles, but cloudy on extreme northern coasts and at most Continental stations. Snow falling at Thurso, Skudesnaes, and Groningen. Snow subsequently falling generally.

Temperature risen slightly in W. France, fallen elsewhere, exceedingly quickly over England and Ireland. Readings low, varying from 43° in the S.W. to 29° at York and 24° at Wick. Day maxima low, followed by sharp frost at night.

Wind light westerly in the W., moderate to strong from N.N.W. on our E. coast and over the North Sea, and fresh from N.E. in the Channel. South-westerly breeze appearing in Ireland at night.

Sea going down, but rough in S.E., N.E., and N., and high off Christiansund.

Barometer risen fast over British Isles, and slightly over Scandinavia, fallen over France and Germany. Readings high and uniform over the United Kingdom, low over the Gulf of Bothnia and the Mediterranean. Slight depression over the North Channel at night, moving southwards.

Friday, March 14.

Weather fine over western half of the Channel, France, and the Netherlands; dull or cloudy in nearly all other places, with snow over central England and N. of Ireland. Rain and snow falling, except in the S.W., later on.

Temperature risen over Ireland, the W. of England, and at most Scandinavian stations; fallen elsewhere—considerably over France; varying from 45° at Valentia to 23° at Leith and Shields. Sharp frost again in Scotland next night, but not in the N.E. of England.

Wind generally north-westerly over and to the eastward of the North Sea, and easterly in France, but varying greatly on our coasts. Blowing a gale at Cuxhaven and Christiansund, light or moderate in most other places.

Sea high at Christiansund, and rough at the mouth of the Elbe.

Barometer rising slightly on the eastern shores of the North Sea and in the E. of France; falling elsewhere. Area of high pressure still lying over us. Depression off the N.W. of Ireland, and another over the Irish Sea, the latter moving eastward over Wales later on.

(*Continued over.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, March 15.

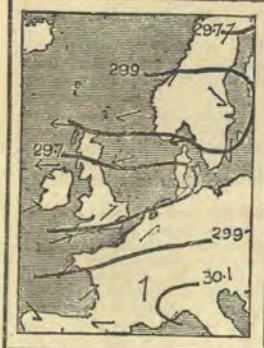
Weather fine over France and Denmark; cloudy or dull elsewhere, with rain or snow in Scotland and Ireland. Weather improving in S.E. later, but snow occurring in the N., and some rain in the S.

Temperature risen except in Norway, the change in the N.W. and N.E. varying between 10° and 20°. Readings varying from 48° at Valentia to 26° in the Shetlands. Maxima in afternoon not high.

Wind easterly over the S. of France, with west-south-westerly winds prevailing over Ireland, England, and N. Germany. A north-easterly wind appearing in the N. of Scotland, and spreading southwards. Not much other change later.

Sea rough off the Hebrides, Valentia, and in the Straits of Dover.

Barometer falling briskly except in Sweden and at Toulon. Band of low pressure (with minima off the Firth of Forth and the western Hebrides) stretching across Scotland and N. Ireland. Band of low pressure moving southwards during day.



Sunday, March 16.

Weather unsettled generally; sky cloudy, with rain and snow at some of the northern stations. Snow or rain occurring in most places during the day but weather improving in S.E. in afternoon. Solar halo seen in London.

Temperature lower than on 15th over Ireland, the S. of Scotland, and N. of England, higher elsewhere, readings varying from 42° at Scilly to 27° at Nairn. Maxima between 50° and 55° in the S. and S.W. during the afternoon.

Wind moderate to fresh from W. over France and our more southern stations, moderate to strong from E. over Scandinavia and our more northern stations. No change during day, beyond the continual spreading southwards of the easterly current.

Sea rough at Hurst Castle and in the N.W. and N.E.

Barometer rising briskly over Scotland, Norway, and Sweden, and slightly over central and southern France, falling over Ireland. Band of low pressure extending across Ireland, England, and North Sea. Pressure recovering generally at 6 P.M.

Monday, March 17.

Weather fine at Stornoway and Nairn as well as over the S. of Scandinavia, Denmark, and many parts of France, cloudy or dull elsewhere, with snow and rain in the N.W. Some rain except in the S. and S.E. during day. Solar halo at Jersey.

Temperature fallen generally, particularly in south-eastern and central England; sharp frost Scotland; readings varying from 50° at Scilly to 22° at Nairn. Maxima during day rather low.

Wind southerly over the western portion of the Channel, easterly to south-easterly in most other places. Moderate or light in force except at Scilly and in the N.W. Wind veering somewhat later in the day.

Sea rather rough in the N.W. and near Christiansund.

Barometer fallen slightly both in the S.W. of France and over the N. of Sweden and Norway, risen elsewhere. Readings high over the North Sea, low over our S.W. coasts and the Gulf of Bothnia. The band of low pressure now broken up, but a depression lying over S.E. of Ireland.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⇒ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 12.] WEEK ENDING MONDAY, MARCH 24, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	45	22	36	4 below.	3	3	1 less.
	2. ENGLAND, NORTH-EAST	58	29	38	4 below.	3	1	2 less.
	3. ENGLAND, EAST	68	28	40	3 below.	2	1	3 less.
	4. MIDLAND COUNTIES	64	28	40	3 below.	2	1	3 less.
	5. ENGLAND, SOUTH	64	28	42	2 below.	2	1	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	55	30	39	3 below.	2	3	1 less.
	7. ENGLAND, NORTH-WEST	55	30	40	3 below.	1	1	4 less.
	8. ENGLAND, SOUTH-WEST	61	31	43	2 below.	2	1	6 less.
	9. IRELAND, NORTH	49	30	39	4 below.	3	1	3 less.
	10. IRELAND, SOUTH	58	25	41	3 below.	2	1	5 less.

General Remarks.

Weather fine in central and south-eastern England during the early part of the week, but generally dull elsewhere. Cloudy and squally weather extending to all parts later. A good deal of fog and mist over the United Kingdom, especially at the beginning of the week. Rain in many places on the 18th with snow in the north, but weather generally dry during remainder of period. Temperature a few degrees below the mean in all districts. Readings uniformly low in Scotland but exhibiting great extremes over England. During the fine weather which prevailed on the 19th the thermometer rose as high as 64° at Audley End, Cirencester, London, and Strathfield Turgiss, 65° at Rothamsted, and 68° at Cambridge, but temperature afterwards fell rapidly, and on the 24th the maxima at the same stations were almost all thirty degrees lower, while at Cambridge the change amounted to thirty-four degrees.

Rainfall less than the mean everywhere, the deficit ranging from one-tenth of an inch in Scotland to six-tenths in "England, S.W." The fall noticed on the 18th was generally in the form of rain, but a few slight snow showers fell in some parts at the close of the week.

Wind southerly to south-easterly at commencement of week, afterwards shifting to E. or N.E. generally, and blowing very strongly in the Channel and south of England. On the 21st wind veered to S.E. in Scotland, but remained easterly elsewhere. At close of period strong breezes were becoming general.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	45	22	35·3	− 4·6	2	0·21	−0·09
	Aberdeen	43	33	37·8	− 3·0	4	0·17	−0·25
	Glenalmond	44	30	34·3	− 6·2	4	0·54	?
	Leith	43	30	37·2	− 3·6	2	0·30	+0·05
2. ENGLAND, N.E.	Shields	47	33	37·4	− 3·7	2	0·18	−0·16
	Durham	57	30	37·6	− 3·8	3	0·16	−0·25
	Scarborough	46	32	37·7	− 3·8	3	0·14	−0·23
	York	56	31	39·3	− 2·3	3	0·06	−0·30
	Kelstern (Lincolnshire) ℳ	58	29	37·8	− 4·3	2	0·13	−0·23
3. ENGLAND, E.	Yarmouth	45	29	36·9	− 5·7	1	0·13	−0·27
	Cambridge	68	29	41·7	− 0·9	2	0·04	−0·26
	Audley End (Saffron Walden) ℳ	64	28	40·6	− 2·7	4	0·09	−0·24
	Rothamsted	65	28	38·8	− 4·0	2	0·07	−0·33
4. MIDLAND COUNTIES	Nottingham	58	29	40·1	− 2·4	2	0·06	−0·37
	Loughborough	61	29	39·9	− 2·4	2	0·10	−0·30
	Leicester	61	29	40·5	− 2·0	2	0·05	−0·31
	Shrewsbury ℳ	53	29	39·8	− 3·2	2	0·09	−0·19
	Hereford ℳ	57	29	40·7	− 2·8	2	0·02	−0·34
	Cirencester	64	28	41·3	− 2·2	2	0·02	−0·42
	Oxford	61	29	39·4	− 3·7	3	0·08	−0·30
5. ENGLAND, S.	London	64	30	41·9	− 1·7	2	0·23	−0·10
	Marlborough ℳ	63	28	41·0	− 2·7	3	0·11	−0·34
	Strathfield Turgiss ℳ	64	30	40·5	− 3·4	2	0·07	−0·27
	Dover	52	31	41·7	− 1·8	2	0·04	−0·43
	Hastings	55	30	42·1	− 2·1	2	0·10	−0·34
	Hurst Castle	53	33	42·4	− 1·8	2	0·09	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	48	30	37·7	− 3·6	1	0·02	?
	Glasgow	46	32	37·2	− 3·9	3	0·43	−0·07
	Ardrossan	50	32	39·3	− 2·3	2	0·41	−0·10
	Silloth	55	31	40·3	− 1·7	1	0·42	+0·03
	Douglas (Isle of Man)	48	31	38·0	− 5·0	2	0·36	−0·23
7. ENGLAND, N.W.	Stonyhurst	55	30	40·2	− 2·2	1	0·03	−0·66
	Manchester	55	30	40·1	− 2·3	1	0·01	−0·47
	Liverpool Observatory (Bidston)	53	31	39·5	− 3·6	1	0·10	−0·22
	Holyhead	49	32	40·5	− 3·2	2	0·10	−0·36
8. ENGLAND, S.W.	Pembroke	52	31	41·9	− 3·4	2	0·05	−0·55
	Barnstaple							
	Falmouth	56	34	44·3	− 2·1	3	0·09	−0·53
	Plymouth	61	32	44·7	− 0·6	1	0·01	−0·60
	Prawle Point	56	32	42·2	− 3·0	2	0·05	?
9. IRELAND, N.	Mullaghmore	48	32	39·4	− 3·6	2	0·05	?
	Armagh	49	30	38·3	− 4·9	4	0·06	−0·34
	Donaghadee	47	32	38·5	− 4·2	4	0·26	?
10. IRELAND, S.	Dublin	49	33	39·8	− 3·6	2	0·18	−0·28
	Kingstown	47	33	39·0	− 4·7	2	0·23	−0·27
	Parsonstown	53	25	38·0	− 5·3	1	0·06	−0·49
	Roche's Point	52	33	43·2	− 2·1	1	0·02	−0·76
	Valentia	58	35	44·9	− 0·3	2	0·13	−0·78
SCOTLAND, N.	Sumburgh Head	40	31	36·0	− 3·1	2	0·04	−0·30
	Stornoway	43	30	37·0	− 3·1	1	0·07	−0·84
	Thurso	42	30	36·5	− 3·3	3	0·42	−0·04
	Wick	42	32	37·3	− 2·4	2	0·52	+0·20
——	Scilly (St. Mary's)	55	35	45·7	− 2·2	3	0·10	−0·37
	Jersey (Noirmont)	56	36	43·7	− 1·6	2	0·36	−0·39

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

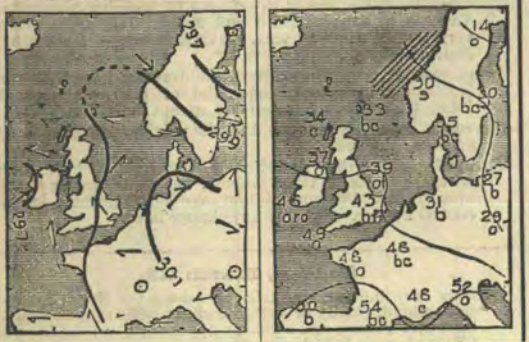
II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending March 24, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, March 18.

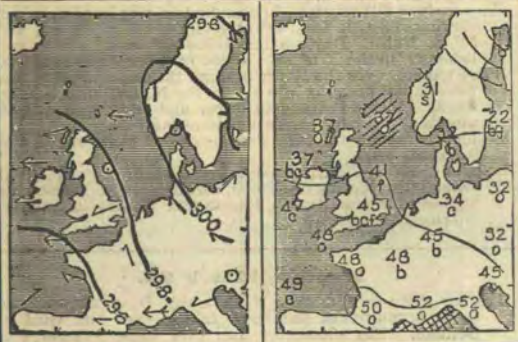
Weather moderately fine in the S.E., but cloudy or dull elsewhere, with rain at Thurso, drizzle at Valentia, and a great deal of fog or haze over the country. Rain falling in most districts subsequently.

Temperature several degrees higher on eastern shores of North Sea and at our more eastern stations than it was on 17th; not much changed in other places. Readings varying from 49° at Scilly to 33° at Nairn, and rising to 59° at Cambridge and 53° in London later in day.

Wind southerly to south-easterly generally, but drawing into E. in the northern parts of Scotland and Ireland; light to moderate in force on all our coasts. Scarcely any change during day.

Sea moderate to smooth.

Barometer rising slightly Sweden, but falling over the whole of western Europe. Readings highest over N. Germany, lowest to the westward of Ireland; gradients moderate. Pressure still decreasing slowly at 6 P.M.



Wednesday, March 19.

Weather fine both in the south-eastern and north-western districts, dull or cloudy elsewhere with rain in Caithness and very much fog and mist over the Kingdom. Rain during day very slight, and at a few stations only.

Temperature risen somewhat over the Netherlands and E. of France, changed little and irregularly elsewhere, varying from 49° in the S.W. to 35° at Nairn. Air subsequently became warmer than has yet been experienced this year, maxima of 68° being noted at Cambridge and 64° in London.

Wind variable, easterly (S.E. to N.E.) over the whole of western Europe, but westerly in Sweden. Light or moderate in force except at Scilly, Mullaghmore, and Sumburgh Head. No change later.

Sea moderate to slight except off the Shetlands.

Barometer still falling over France and our S. coast, but rising over Scandinavia and the greater part of these Islands. Later observations showing a continuation of the same changes.

Thursday, March 20.

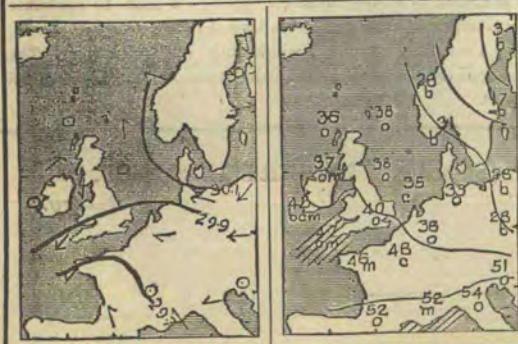
Weather fair over Ireland as well as over Holland, N. Germany, and Sweden, dull and foggy elsewhere. Scarcely any rain falling during day except in E. of Scotland.

Temperature changed little, but showing a slight rise except in the S.W. and E.; readings vary from 49° at Scilly to 35° at Nairn. Maxima at central English stations about 10° lower than on previous day.

Wind southerly in S. France but becoming easterly to north-easterly elsewhere; light or moderate in force except at the entrance to the Channel. Fresh to strong from N.E. over the whole of the Channel at night.

Sea rough near the Scilly Islands moderate to slight in other places.

Barometer still falling over France, rising elsewhere. Readings highest over Norway, lowest over S.W. France, where a well marked depression is shown. Pressure giving way slightly in Scotland at night.



Friday, March 21.

Weather fine over Sweden, Ireland, Wales, and the E. of France, dull in most other districts, with a gloomy appearance in the S.E., and mist in some places. Slight rain or sleet in the W. and N.W. later.

Temperature fallen generally, but change slight, except in S. of England and over France; readings varying, from 47° at Scilly to 36° in the Hebrides. Day cold, maximum in London only 46°, and at Yarmouth 39°.

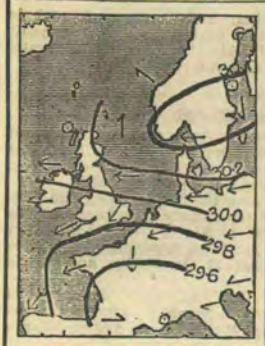
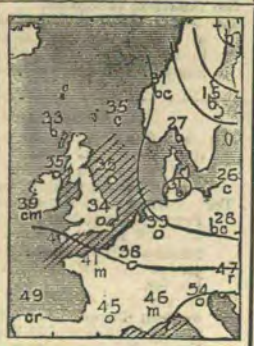
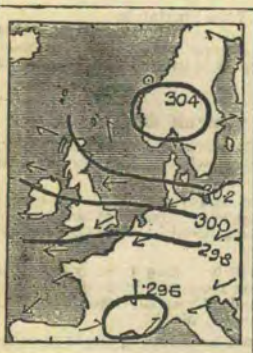
Wind north-easterly over N. Germany, the North Sea, the greater part of England, the Channel, and France, but south-easterly over Norway and the Shetlands, and variable at our own more northern stations. South-westerly breeze in N.W., and increasing later on.

Sea nearly smooth, except at entrance to the Channel.

Barometer falling over the northern parts of these Islands and at Christiansund, rising elsewhere. Readings high over Ireland and also over Scandinavia; lowest in S.W. of France. Slight depression off our N.W. coasts in afternoon.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, March 22. *Weather* exceedingly fine in countries to the eastward of the North Sea, cloudy or dull elsewhere; snow at Oxford and Rochefort. Weather dull all day but very dry. *Temperature* fallen, except in extreme W., varying from 46° at Valentia to 34° at Oxford and Nairn. Day temperature very low for time of year, maxima being, – London 38°, Nottingham 36°, and Oxford 35°. *Wind* easterly over North Sea, but drawing into N.E. over England, Ireland, and France, and into S.E. over Scotland. Fresh to strong in force all day, except in Scotland. *Sea* rough on our E. coast and in the neighbourhood of Scilly and the Shetlands. *Barometer* rising over Scandinavia, Denmark, and the more northern parts of these Islands, but falling in the S. and over France. Pressure highest over Gulf of Bothnia, lowest central France. Scarcely any change later.
		**Sunday, March 23.** *Weather* very fine over countries to eastward of North Sea and in Scotland, cloudy or dull elsewhere, with a good deal of mist over France and a gloomy appearance in the Channel. Slight snow in S.E. during day. *Temperature* fallen except in Scandinavia, very low for season, varying at 8 A.M. from 40° at Scilly to 32° at Oxford, and 30° at Nairn. Day maxima below 45° in all places, and below 40° in the E. and S.; slight frost occurring at night. *Wind* easterly over the North Sea and the central part of our Islands, but drawing into S.E. in the N., and into N.E. in the S. Fresh to strong in force, and blowing a gale in squalls at the south-eastern stations later on. *Sea* high at the mouth of the Tyne, rough all along our E. and S. coasts. *Barometer* rising slightly, except over the S.E. of France, but general distribution unaltered, readings remaining steadily highest over Scandinavia, lowest over the Mediterranean. No change subsequently.
		**Monday, March 24.** *Weather* still very fine over N. Germany, Denmark, and the S. of Scandinavia, but snow falling over the Gulf of Bothnia. Sky cloudy or dull over these Islands and France, with mist in many places, and slight snow in London. Dull or day. *Temperature* again fallen generally, and thermometer below 32° in the S.E. at 8 A.M. Maxima during day only slightly above freezing point at central stations, and frost again prevalent at night. Maxima below 35° in E. and S. *Wind* south-easterly in Scotland, but easterly (E.S.E. to E.N.E.) elsewhere, fresh to strong in force, and blowing a gale at times on our E. coasts. Scarcely any change during day. *Sea* rough in N.E., E., and S. *Barometer* falling temporarily over Sweden, and also on our S.W. coasts, rising slightly in most other places. General distribution little changed.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[13376.—150.—3/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 13.] WEEK ENDING MONDAY, MARCH 31, 1879. [*Price 2d.*
[*Annual subscription, post paid*, 12*s.* 6*d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	55	25	37	5 below.	4	4	1 less.
	2. ENGLAND, NORTH-EAST	57	28	38	4 below.	5	3	1 less.
	3. ENGLAND, EAST	58	28	38	6 below.	6	7	3 more.
	4. MIDLAND COUNTIES	60	26	39	6 below.	6	4	0 (average).
	5. ENGLAND, SOUTH	60	28	40	5 below.	5	4	0 (average).
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	55	27	39	4 below.	5	4	1 less.
	7. ENGLAND, NORTH-WEST	54	29	39	6 below.	3	2	3 less.
	8. ENGLAND, SOUTH-WEST	58	30	42	5 below.	5	5	1 less.
	9. IRELAND, NORTH	51	29	38	6 below.	6	5	1 more.
	10. IRELAND, SOUTH	54*	28	40	5 below.	5	9	2 more.

General Remarks.

Weather very changeable; cold, dull, and showery over England and Ireland at commencement of week but finer in Scotland; becoming rather finer in southern districts towards close of period, but more unsettled in north. Temperature again below the mean in all districts. Thermometer lowest during early part of week, when maxima were less than 40° in all places, and below the freezing point in some parts of Scotland and central England. General rise occurred on 28th, and day temperatures during remainder of week were about twenty degrees higher than those previously experienced. Minima not showing so large a change.

Rainfall a little more than the mean in Ireland and "England, E.," less in Scotland and in "England, N.E., N.W., " and S.W.," and showing scarcely any departure in the Midland Counties and "England, S." Snow and sleet showers were very general over England and some parts of Scotland during the earlier portion of the week.

Wind easterly to south-easterly, strong to a gale on the 25th and 26th, veering to the southward on the 28th and continuing southerly or south-westerly until the close of the period. Fresh to strong southerly gales in the west and north-west on the 28th and 30th.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	52	26	37·5	− 4·0	0	0·00	−0·30
	Aberdeen	50	30	38·2	− 3·5	4	0·50	+0·07
	Glenalmond	47	25	34·1	− 7·7	7	0·97	?
	Leith	55	27	38·3	− 3·7	6	0·27	+0·01
2. ENGLAND, N.E.	Shields	54	32	39·1	− 3·4	4	0·08	−0·26
	Durham	55	29	37·9	− 4·7	5	0·28	−0·12
	Scarborough	53	31	39·2	− 3·6	5	0·28	−0·08
	York	56	30	38·6	− 4·4	6	0·27	−0·10
	Kelstern (Lincolnshire) ℳ	57	28	37·2	− 5·9	7	0·56	+0·20
3. ENGLAND, E.	Yarmouth	49	29	37·3	− 6·5	6	0·65	+0·25
	Cambridge	58	29	39·6	− 4·4	6	0·86	+0·55
	Audley End (Saffron Walden) ℳ	53	28	37·6	− 7·0	6	0·42	+0·10
	Rothamsted	52	28	38·0	− 6·1	6	0·66	+0·28
4. MIDLAND COUNTIES	Nottingham	60	29	39·2	− 4·7	4	0·28	−0·16
	Loughborough	58	29	38·9	− 4·9	5	0·23	−0·17
	Leicester	56	29	39·0	− 5·0	6	0·37	+0·03
	Shrewsbury ℳ	55	26	37·8	− 6·5	7	0·27	−0·01
	Hereford ℳ	56	28	39·7	− 5·5	5	0·21	−0·14
	Cirencester	54	28	38·7	− 6·3	6	0·60	+0·15
	Oxford	54	28	39·1	− 5·3	6	0·55	+0·19
5. ENGLAND, S.	London	60	30	41·2	− 3·9	5	0·20	−0·14
	Marlborough ℳ	55	28	39·2	− 5·9	4	0·58	+0·14
	Strathfield Turgiss ℳ	59	29	40·4	− 5·0	4	0·29	−0·07
	Dover	49	31	39·8	− 4·9	6	0·46	0·00
	Hastings	50	30	40·2	− 5·5	6	0·46	+0·02
	Hurst Castle	49	32	40·4	− 5·0	2	0·31	?
6. SCOTLAND, W.	Laudale (Loch Sunart)							
	Glasgow	52	27	38·3	− 4·2	4	0·39	−0·13
	Ardrossan	49	28	38·6	− 4·2	6	0·39	−0·11
	Silloth	55	28	40·3	− 2·9	5	0·24	−0·14
	Douglas (Isle of Man)	50	30	38·8	− 5·1	4	0·48	−0·09
7. ENGLAND, N.W.	Stonyhurst	52	29	37·9	− 5·7	3	0·18	−0·46
	Manchester	54	29	37·9	− 5·7	3	0·24	−0·24
	Liverpool Observatory (Bidston)	53	30	38·7	− 5·6	3	0·14	−0·17
	Holyhead	51	30	39·9	− 4·8	3	0·13	−0·32
8. ENGLAND, S.W.	Pembroke	49	30	39·9	− 6·6	4	0·44	−0·12
	Barnstaple	58	31	42·7	− 3·3	3	0·22	−0·30
	Falmouth	53	32	42·9	− 4·5	5	0·95	+0·36
	Plymouth	55	30	42·7	− 3·8	5	0·35	−0·23
	Prawle Point	51	30	40·5	− 5·7	7	0·66	?
9. IRELAND, N.	Mullaghmore	49	30	38·7	− 5·3	5	0·57	?
	Armagh	51	29	37·5	− 6·7	7	0·47	+0·07
	Donaghadee	50	30	38·2	− 5·7	5	0·43	?
10. IRELAND, S.	Dublin	53	32	40·3	− 4·4	6	0·46	−0·05
	Kingstown	54	32	40·2	− 4·9	6	0·42	−0·03
	Parsonstown	52	28	38·7	− 5·6	5	0·33	−0·19
	Roche's Point	51	30	40·9	− 5·4	5	1·78	+1·05
	Valentia	52	29	40·6	− 5·4	4	1·32	+0·42
SCOTLAND, N.	Sumburgh Head	45	30	36·7	− 3·3	5	0·37	0·00
	Stornoway	46	30	36·8	− 4·1	3	0·50	−0·35
	Thurso	53	26	37·2	− 3·2	4	0·26	−0·22
	Wick	52	28	37·7	− 3·3	3	0·43	+0·09
——	Scilly (St. Mary's)	54	35	44·6	− 4·2	7	1·08	+0·62
	Jersey (Noirmont)	51	34	42·9	− 3·3	6	0·74	+0·05

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

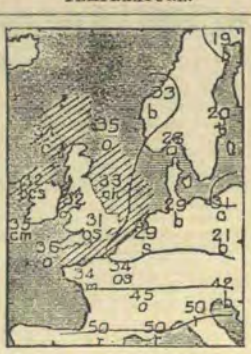
II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending March 31, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, March 25.

Weather still clear Sweden and N. Germany; dull elsewhere, with hail and snow on our N.E. coasts, rain and snow at many of our stations and in N. France, rain over the Bay of Biscay. Snow all day in S. of England and E. of Scotland.

Temperature fallen generally, and very low for the season; readings varying from 36° at Scilly and 35° in the Shetlands to 28° at Oxford. Maxima only slightly above 32° at inland and northern stations, and above 40° only in extreme S.W.

Wind easterly generally, drawing into S.E. in Scotland and into N.E. in France; fresh in force over England and Ireland, and blowing a gale at Yarmouth. Not much change later, but wind gradually rising in N. and E.

Sea rough in E., S., and N.W.

Barometer rising in Sweden, and very slightly in S. France also; falling elsewhere. Distribution of pressure unchanged, readings being highest over Gulf of Bothnia, and lowest off our S.W. coasts and over central France. Barometer falling briskly in S.W. later.

Wednesday, March 26.

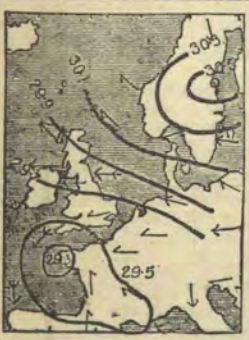
Weather fair at our north-western and northern stations, and still clear in Sweden and N. Germany; dull and unsettled elsewhere, with snow, rain, and fog over the S. of England and N. of France. Snow, rain, or hail generally later.

Temperature fallen several degrees over Gulf of Bothnia, and slightly in S.W. France; risen slightly elsewhere. Highest day temperatures ranging between 35° and 45°.

Wind north-easterly over Scandinavia and Denmark, south-easterly to easterly in nearly all other places; strong in force except over France, blowing a strong gale at Shields, and a fresh gale at Scilly. Very strong all day.

Sea high at the mouth of the Tyne, and rough generally except in the Channel.

Barometer rising in Sweden, falling elsewhere—quickly in the S.W. Well defined anticyclone lying over the northern half of Sweden, and large depression off our S.W. coasts. Barometer falling all day.



Thursday, March 27.

Weather clear in Scotland and still fine in N. of Sweden, dull or cloudy elsewhere, snow falling in N.W. and N.E. and rain in S.W. Sleet except in S.W. during day.

Temperature risen somewhat over France and south-eastern England, fallen slightly in most other places; readings varying from 41° at Scilly, to 33° at Nottingham and 29° at Nairn. Maxima again ranging between 45° and 35°.

Wind easterly over the greater part of the Kingdom, but drawing into N.E. at Scilly and into N. in N. Spain, while in W. France it is southerly. Wind still strong generally and blowing gale in N.E. and S.W.; strong all day.

Sea high in N.E. and rough generally.

Barometer rising briskly in Ireland and slightly in Sweden, falling elsewhere, rather quickly in W. France. Depression noticed in S.W. on 26th, has moved south-eastward to Brittany; but anticyclone still lies over Sweden.

Friday, March 28.

Weather fine at a few northern and north-western stations, but dull or very cloudy generally. Snow reported from the Shetlands and rain from Brest and Donaghadee. Rain falling on most coasts during day or night—heavily in S. of Ireland.

Temperature risen slightly in S.W., but little changed elsewhere, varying from 44° at Scilly to 33° at York and 29° at Nairn. Rising decidedly in the W. in evening, and maxima ranging from 52° to 40°.

Wind still blowing a fresh easterly gale on eastern shores of North Sea, but lighter on our coasts—from N.E. to N. over England and France, but from S.E. in Ireland and Scotland. Fresh to strong southerly gale in W. and N. at night.

Sea rough in N.E., N., and S.W.

Barometer risen quickly over Bay of Biscay and slightly over England, falling in most other places—quickly Ireland. Yesterday's depression now near Belgium; large new depression approaching Ireland during day, and moving north-eastward.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, March 29.

Weather much milder generally, fine at a few north-western stations and in some parts of France; cloudy or dull in most places, with rain and fog over Straits of Dover. Rain fell except in the N.E. of Scotland later on.

Temperature risen over these Islands and N.W. of France, but not rapidly; readings varying from 49° at Nottingham to 38° at Thurso and 40° at Valentia. Thermometer reaching 60° during day in London and at Nottingham.

Wind westerly in S.W., but south-westerly on most of our coasts, south-easterly in Shetlands and W. of Norway, moderate to fresh in force generally, but blowing a gale in the far north. Wind backing Swd., again in the W. during day.

Sea high in the N.E., rough in the S. and W.

Barometer falling rapidly in the N. and briskly over Norway and on most of our other coasts, but rising over France and our south-western stations. Readings highest over S. France, lowest near Hebrides. Pressure giving way at Valentia later.

Sunday, March 30.

Weather unsettled, and cloudy or dull generally, with rain at Prawle Point. Showers of rain occurring in most places during day.

Temperature not changing much, and readings moderately uniform, varying from 48° in the S.W. to 40° in the N. of Scotland. Maxima during day 55° in the S.E. and at Nottingham.

Wind south-westerly to southerly on all coasts, fresh to strong except in the S.E. Strong southerly gale at Mullaghmore at 8 A.M., extending to Stornoway later. Fresh breeze generally all day.

Sea high at Valentia, rough in the S.W., W., and N.

Barometer rising in the S.E., falling in all other districts. Readings highest over central France; large depression off our N.W. coasts, moving northward later, and barometer rising S.W.

Monday, March 31.

Weather still rather cloudy generally, with rain in the S.E., but improving somewhat in most places. Moderately fine later in day, but slight rain falling in W. and S.E.

Temperature risen quickly Sweden, changed little and rather irregularly elsewhere; readings varying from 47° in the S. to 40° at Aberdeen. Maxima 58° in London and 57° at Cambridge.

Wind westerly in the S.W., south-westerly to southerly elsewhere, light or moderate in force on most coasts. Strong from S.E. in Norway. Wind veering somewhat later.

Sea rough in the Channel and off the Hebrides and Shetlands.

Barometer rising in the W. and N., falling elsewhere. Readings high over the Gulf of Lyons and Gulf of Bothnia, low off the N.W. of Scotland. Pressure increasing everywhere subsequently.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[13376.—150.—4/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 14.] WEEK ENDING MONDAY, APRIL 7, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

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Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.)				Rainfall. (Amounts in tenths of an inch.)		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	55	28	43	0 (average).	4	8	4 more.
	2. ENGLAND, NORTH-EAST	56	30	44	0 (average).	4	6	2 more.
	3. ENGLAND, EAST	61	29	44	1 below.	4	5	2 more.
	4. MIDLAND COUNTIES	60	26	44	2 below.	5	6	2 more.
	5. ENGLAND, SOUTH	59	27	45	2 below.	4	8	4 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	55	28	44	0 (average).	5	8	0 (average).
	7. ENGLAND, NORTH-WEST	57	30	44	2 below.	4	4	0 (average).
	8. ENGLAND, SOUTH-WEST	58	33	46	2 below.	5	8	2 more.
	9. IRELAND, NORTH	57	26	43	2 below.	5	8	?
	10. IRELAND, SOUTH	59	27	45	1 below.	5	12	6 more.

General Remarks.

Weather generally fair during early part of week, but becoming dull in the west and north on the 4th, and cloudy weather extending to all districts in course of next day. Much rain during latter half of period, especially in "England, S.W.," and "Ireland, S." Fog in "England, E.," on the 3rd.

Temperature a little below the mean in most districts. No very striking maxima reported, highest being on 7th, when thermometer at central stations rose to about 60°. Night frosts at all inland stations about the 3rd, 4th, and 5th, lowest reading (26°) being recorded at Shrewsbury and at Brookeborough (Ireland, N.)

Rainfall about the mean in "Scotland, W.," and "England, N.W.," but more in all other districts, excess being greatest in "England, S.," and "Ireland, S.," where some heavy falls occurred on Sunday the 6th. Very heavy rain fell in some parts of Scotland on the 7th.

Wind light westerly or variable at commencement of week. Strong southerly to south-westerly winds or gales in the west and south on the 5th and 6th, but moderating on the 7th. Wind increasing from the south-eastward in "Scotland, E.," on the evening of the 7th.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	Rainfall. No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	53	30	43·7	+ 0·7	3	0·16	−0·14
	Aberdeen	55	33	43·3	+ 0·4	5	1·61	+1·15
	Glenalmond	50	28	41·3	− 1·9	4	0·78	?
	Leith	54	31	44·4	+ 1·0	2	0·52	+0·23
2. ENGLAND, N.E.	Shields	54	32	43·2	− 0·8	2	0·60	+0·22
	Durham	56	30	44·7	+ 0·6	4	0·60	+0·18
	Scarborough	54	34	43·5	− 0·8	5	0·57	+0·21
	York	56	31	45·1	+ 0·5	5	0·36	−0·02
	Kelstern (Lincolnshire) ✠	56	30	43·3	− 1·0	5	0·77	+0·39
3. ENGLAND, E.	Yarmouth	50	30	41·1	− 4·3	5	0·46	+0·06
	Cambridge	61	30	45·7	+ 0·1	3	0·30	0·00
	Audley End (Saffron Walden) ✠	59	29	45·0	− 1·2	3	0·51	+0·19
	Rothamsted	56	34	45·6	− 0·3	6	0·88	+0·49
4. MIDLAND COUNTIES	Nottingham	60	27	45·3	− 0·1	4	0·56	+0·12
	Loughborough	58	29	44·5	− 1·0	5	0·75	+0·37
	Leicester	58	31	44·7	− 0·9	5	0·47	+0·15
	Shrewsbury ✠	57	26	42·6	− 3·0	6	0·47	+0·17
	Hereford ✠	55	30	44·4	− 2·6	5	0·51	+0·16
	Cirencester	55	28	43·4	− 3·2	4	0·77	+0·33
	Oxford	55	31	43·9	− 2·4	4	0·62	+0·26
5. ENGLAND, S.	London	59	31	46·9	+ 0·1	4	0·61	+0·25
	Marlborough ✠	55	29	44·0	− 2·7	4	0·89	+0·43
	Strathfield Turgiss ✠	57	27	44·7	− 2·2	3	0·63	+0·25
	Dover	51	37	44·7	− 1·6	5	0·70	+0·24
	Hastings	56	36	45·5	− 1·5	6	1·01	+0·57
	Hurst Castle	53	34	44·9	− 1·7	3	0·91	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	52	33	43·5	+ 0·1	6	1·78	?
	Glasgow	52	32	44·6	+ 0·6	4	0·52	+0·01
	Ardrossan	51	33	44·0	− 0·1	6	0·41	−0·09
	Silloth	55	28	44·6	0·0	3	0·16	−0·22
	Douglas (Isle of Man)	50	31	42·5	− 2·8	5	0·91	+0·39
7. ENGLAND, N.W.	Stonyhurst	57	30	43·1	− 2·1	4	0·37	−0·24
	Manchester	55	30	42·9	− 2·6	3	0·40	−0·06
	Liverpool Observatory (Bidston)	55	35	44·6	− 1·1	3	0·33	+0·03
	Holyhead	51	36	44·3	− 1·6	4	0·60	+0·18
8. ENGLAND, S.W.	Pembroke	49	35	43·7	− 4·1	5	0·84	+0·31
	Barnstaple	58	33	47·0	− 0·4	5	0·56	+0·04
	Falmouth	54	38	46·8	− 1·8	5	0·61	+0·04
	Plymouth	56	34	45·7	− 2·0	5	0·75	+0·20
	Prawle Point	52	34	44·7	− 2·7	5	1·36	?
9. IRELAND, N.	Mullaghmore	55	35	44·4	− 1·0	6	0·43	?
	*Brookeborough	57	26	42·3	− 3·4	3	0·49	?
	Armagh	56	32	43·8	− 1·6	7	1·31	+0·88
	Donaghadee	52	30	42·3	− 3·0	5	0·82	?
10. IRELAND, S.	Dublin	58	31	45·3	− 0·6	3	0·50	−0·06
	Kingstown	59	34	45·1	− 1·2	5	0·74	+0·34
	Parsonstown	59	27	44·1	− 1·5	6	1·12	+0·62
	Roche's Point	55	35	45·3	− 2·1	6	1·57	+0·88
	Valentia	54	36	45·7	− 1·5	6	1·90	+1·01
SCOTLAND, N.	Sumburgh Head	49	35	41·5	+ 0·3	5	0·44	+0·05
	Stornoway	50	33	42·0	0·0	7	0·44	−0·36
	Thurso	55	31	43·0	+ 1·4	7	1·61	+1·09
	Wick	52	30	42·3	− 0·1	6	0·59	+0·21
——	Scilly (St. Mary's)	55	42	43·7	− 6·2	6	0·64	+0·17
	Jersey (Noirmont)	55	39	46·6	− 1·0	5	0·84	+0·22

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "✠" are in connection with the Meteorological Society.

* Brookeborough has now been added to the list of stations in "Ireland, N."

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 7, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, April 1.

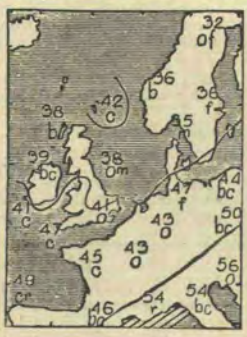
Weather dull at the continental stations, with rain on eastern shores of North Sea and at Biarritz, fair over these Islands, and clear in many places. Slight rain except at eastern and central stations during day.

Temperature a little higher than on 31st, over eastern France and in Scandinavia, rather lower elsewhere: varying from 50° at Scilly, to 39° at Oxford and 36° at Thurso. Maxima between 50° and 55° generally.

Wind light except at Biarritz and Wisby, westerly over the British Isles, northerly over Bay of Biscay, and south-easterly over Baltic. Very light breezes all day.

Sea smooth.

Barometer rising over these Islands but falling over Continent. Readings high over Mediterranean and Gulf of Bothnia, lowest over Scotland; shallow local depression over France. Barometer rising all day.



Wednesday, April 2.

Weather still cloudy or dull on Continent, and also at some of our eastern and south-eastern stations, but remaining fair generally over these Islands. A little rain falling in N.W. and S.W. during day.

Temperature risen slightly in the extreme N. of Scotland and over Sweden; fallen elsewhere; readings comparatively uniform, varying only from 47° at Scilly to 34° at Oxford and about 35° in Norway. Maxima 58° at Nottingham, 57° in London and Cambridge.

Wind light or moderate on all coasts, and very variable in direction. Westerly breeze appearing in W. at night.

Sea smooth.

Barometer still falling on the Continent, and rising over these Islands; readings, though lower over North Sea than elsewhere, very uniform over western Europe. Slight general fall occurring at night.

Thursday, April 3.

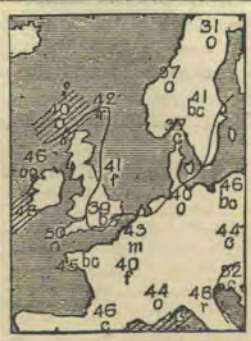
Weather fine at the northern and western stations, but foggy in the E. and S.E.; rainy and foggy to the eastward of North Sea. Slight rain again in N.W. and S.W. subsequently.

Temperature risen slightly in Ireland, fallen in nearly all other places, varying from 43° at Scilly to 35° at Nairn and in London. Maxima ranging between 45° and 55°, but next night cold and frosty at central stations.

Wind light or moderate in force at nearly all stations—from between W. and N. over these Islands and France, and from N. over the North Sea, but from S.W. or S. on our extreme northern coasts. South-westerly breeze extending later.

Sea moderate to smooth.

Barometer falling in N. Scotland, as well as over the Netherlands, N. Germany, and the S. of Scandinavia; rising slightly elsewhere. Readings high Spain. Depression off the N.W. of Scotland, and another over N. Germany.



Friday, April 4.

Weather very fine over south-eastern and central England, cloudy or dull in most other places; foggy at Paris and Fanö, and rainy at Groningen. Rain falling on our W. coasts during day, but weather remaining very fine in S.E.

Temperature fallen slightly over north-eastern France, risen elsewhere, varying from 50° at Scilly to 37° at Oxford. Maxima 57° in London and at Cambridge, and between 50° and 55° at other inland stations.

Wind light or moderate, from S.W. on our N.W. coasts, from W. in most other parts of these Islands, and from the northward over France and the North Sea. Wind backing to S.E. at Valentia at night.

Sea nearly smooth in morning, but becoming rather rough off Stornoway later.

Barometer rising except in the extreme N.; highest over Bay of Biscay, lowest to the northward of Scotland and in a shallow depression over Denmark. Mercury fallen decidedly in Ireland at night.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, April 5.

Weather fine over central France, but cloudy or dull in all other places. Rain falling in W., and fog prevailing in the S.E. Weather unsettled all day, and rain occurring generally.

Temperature rising everywhere; varying from 50° at Valentia to 44° at Nottingham and York. Maxima not so high as on previous day, but ranging from 50° to 55° generally.

Wind south-easterly in the S. of France, south-westerly in nearly all other districts; light in the E., but fresh to strong elsewhere. Fresh gale at Mullaghmore and Pembroke, and strong gale at Scilly in succeeding night.

Sea rough Valentia and Stornoway.

Barometer risen quickly over N. Germany and the Baltic, slightly over France, fallen over these Islands most in W. Readings highest over S. of Bay of Biscay, lowest off N.W. coasts. Mercury falling all day.

Sunday, April 6.

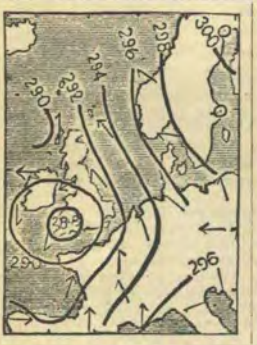
Weather dull and unsettled, with rain in the W. and S.W. at 8 A.M. Rain falling generally later, heavily over the Channel and N.W. of France but very lightly in Scotland.

Temperature risen on eastern shores of North Sea and at several French stations, changed little and irregularly these Islands: varying from 50° at Scilly to 43° at Aberdeen. Maxima between 45° and 55°.

Wind north-westerly in the S. of Ireland but southerly (S.W.–S.E.) in all other places, blowing strongly except in the E. and reaching a strong gale at Scilly and a fresh gale at Pembroke. Fresh gusty wind all day.

Sea high at Scilly, rough in W., N., and S.

Barometer falling everywhere, quickly in the S.W. Readings high over Baltic and Mediterranean, low off our W. coasts; small but rather deep disturbance over S. Ireland. Barometer falling all day, depression in S.W. dispersing, but new one advancing from Atlantic at night.



Monday, April 7.

Weather fair in some parts of Ireland and Scotland, fine in the W. of Norway, dull and unsettled elsewhere. Sky clearing considerably in S.E. during day, but rain falling again at night, very heavily in Scotland.

Temperature rising in the S. and S.E., falling slightly elsewhere, varying from 52° in London to 40° at Shields. Maxima 61° at Cambridge, 60° at Nottingham, and 59° in London, but only 42° at Aberdeen.

Wind south-westerly over the Channel, southerly in the S.E. of England, south-easterly in the E. of England, and easterly to north-easterly in the N.W. and W. Wind rising to a gale from E.S.E. in Scotland at night.

Sea high to the northward of Scotland and off Hurst Castle, rough in the Channel.

Barometer falling except in Sweden—quickly over our S.W. coasts and France. Readings highest over Baltic, low off the W. coast of Scotland, but a small well marked and deep depression in S.W. Disturbance subsequently moving northward.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—4/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY; AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 15.] WEEK ENDING MONDAY, APRIL 14, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	58	28	40	5 below.	5	8	3 more.
	2. ENGLAND, NORTH-EAST	58	27	38	8 below.	6	8	4 more.
	3. ENGLAND, EAST	61	25	40	8 below.	7	10	6 more.
	4. MIDLAND COUNTIES	58	? 19	39	9 below.	6	9	5 more.
	5. ENGLAND, SOUTH	60	25	41	7 below.	4	8	4 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	53	28	41	5 below.	3	4	2 less.
	7. ENGLAND, NORTH-WEST	53	27	40	8 below.	4	4	1 less.
	8. ENGLAND, SOUTH-WEST	57	27	41	8 below.	4	6	0 (average).
	9. IRELAND, NORTH	49	29	41	6 below.	3	3	?
	10. IRELAND, SOUTH	56	27	42	6 below.	4	4	2 less.

General Remarks.

Weather generally cloudy or dull, but moderately fair on the 11th and early part of the 12th. Much snow, hail, and sleet over Scotland and England, and a good deal of rain in the extreme south-west of England. Temperature considerably below the mean in all districts. Thermometer highest on the 8th, when maxima ranging between 58° and 61° were registered over "Scotland, E.," and England, but afterwards falling quickly, and remainder of week very cold. Day temperatures at end of week frequently below 40° at the inland stations, and as low as 34° at Strathfield Turgiss (England, S.) on the 12th. Owing to the great prevalence of cloud, no *very* low minima are recorded excepting that at Shrewsbury on the 13th, when the sheltered thermometer is reported to have fallen as low as 19°.

Rainfall more than the mean over the greater part of England and also in "Scotland, E.," but less in "Scotland, W.," "England, N.W.," and "Ireland, S." At some of the English stations rain, snow, or hail fell every day, and at many others six rainy days were reported.

Wind at first north-westerly to westerly in the south, and south-easterly to easterly in the north, but easterly or north-easterly breezes subsequently becoming general, and continuing until the close of the week. Wind frequently strong in force, and easterly gale reported in the north of Scotland on the 8th, in the south-east of England on the 11th, and in the south-west of England on the night of the 13th and during the 14th.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	Rainfall. No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	50	29	40·8	− 3·7	4	0·18	−0·12
	Aberdeen	52	32	40·6	− 3·7	5	1·07	+0·58
	Glenalmond	50	28	37·6	− 7·2	5	1·03	?
	Leith	58	30	40·2	− 4·7	5	0·90	+0·57
2. ENGLAND, N.E.	Shields	43	30	37·9	− 7·5	6	0·89	+0·50
	Durham	56	27	37·1	− 8·5	6	0·63	+0·19
	Scarborough	43	31	37·8	− 7·9	5	0·51	+0·14
	York	58	27	39·7	− 6·3	5	0·47	+0·08
	Kelstern (Lincolnshire) ✠	54	29	37·5	− 8·7	7	1·44	+1·07
3. ENGLAND, E.	Yarmouth	46	32	38·2	− 8·5	7	0·68	+0·28
	Cambridge	61	26	40·9	− 6·3	7	0·95	+0·65
	Audley End (Saffron Walden) ✠	57	25	39·9	− 7·8	7	1·19	+0·86
	Rothamsted	57	26	38·8	− 8·9	5	1·01	+0·61
4. MIDLAND COUNTIES	Nottingham	58	27	39·3	− 7·7	6	1·15	+0·71
	Loughborough	57	28	38·9	− 8·2	6	1·06	+0·69
	Leicester	55	29	38·8	− 8·6	5	0·64	+0·34
	Shrewsbury ✠	49	? 19	36·4	−10·8	6	1·37	+0·97
	Hereford ✠	53	28	39·3	− 9·3	6	0·47	+0·11
	Cirencester	55	29	39·4	− 8·9	6	0·72	+0·26
	Oxford	51	29	39·5	− 8·7	5	0·52	+0·16
5. ENGLAND, S.	London	58	29	42·2	− 6·1	5	0·93	+0·57
	Marlborough ✠	56	28	39·7	− 8·5	4	0·82	+0·35
	Strathfield Turgiss ✠	60	25	39·5	− 9·0	4	0·84	+0·38
	Dover	52	31	42·6	− 5·2	5	0·94	+0·50
	Hastings	56	27	41·3	− 6·9	2	0·61	+0·19
	Hurst Castle	50	29	40·8	− 7·4	3	0·51	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	50	31	40·5	− 4·2	1	0·15	?
	Glasgow	49	30	39·6	− 5·8	4	0·48	−0·04
	Ardrossan	51	31	41·9	− 3·5	4	0·25	−0·26
	Silloth	53	28	41·6	− 4·2	2	0·22	−0·17
	Douglas (Isle of Man)	47	31	39·7	− 6·7	2	0·08	−0·41
7. ENGLAND, N.W.	Stonyhurst	50	28	38·9	− 7·8	3	0·16	−0·43
	Manchester	49	27	38·3	− 8·7	4	0·42	−0·03
	Liverpool Observatory (Bidston)	53	30	40·0	− 7·1	4	0·65	+0·37
	Holyhead	49	34	41·1	− 6·3	4	0·19	−0·20
8. ENGLAND, S.W.	Pembroke	51	30	40·2	− 9·1	2	0·12	−0·38
	Barnstaple	55	27	43·0	− 5·8	4	0·33	−0·17
	Falmouth	53	32	41·5	− 8·2	6	0·56	−0·01
	Plymouth	57	30	41·4	− 7·5	5	0·92	+0·41
	Prawle Point	52	30	39·9	− 8·8	5	1·25	?
9. IRELAND, N.	Mullaghmore	49	33	42·1	− 4·6	3	0·34	?
	Brookeborough	48	29	40·0	− 6·9	3	0·32	?
	Armagh	46	30	40·1	− 6·5	3	0·24	−0·23
	Donaghadee	49	32	40·9	− 5·6	3	0·33	?
10. IRELAND, S.	Dublin	48	32	41·0	− 6·4	5	0·78	+0·19
	Kingstown	48	31	40·3	− 7·3	5	0·57	+0·20
	Parsonstown	54	27	40·6	− 6·5	3	0·26	−0·21
	Roche's Point	55	32	42·6	− 6·0	2	0·30	−0·34
	Valentia	56	30	42·9	− 5·5	3	0·12	−0·74
SCOTLAND, N.	Sumburgh Head*							
	Stornoway	48	34	40·5	− 2·6	1	0·02	−0·69
	Thurso	51	35	41·9	− 1·0	4	0·28	−0·26
	Wick	51	32	40·5	− 3·1	4	0·19	−0·21
———	Scilly (St. Mary's)	53	35	43·0	− 7·9	5	0·84	+0·37
	Jersey (Noirmont)	53	35	43·2	− 5·9	4	0·10	−0·40

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "✠" are in connection with the Meteorological Society.
* The returns from this station have not arrived during this week, telegraphic communication being interrupted.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 14, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, April 8.

Weather fine over the Channel, but cloudy or dull and unsettled in nearly all other places, with rain at a large number of stations. Rain at all except our south-western stations during subsequent 24 hours.

Temperature lower than on 7th on the Continent, particularly in the S. of France, but showing little change elsewhere; varying from 49° at Valentia to 40° at Scarboro'. Maxima 61° at Cambridge and 58° in London.

Wind north-westerly to westerly in the S. and S.W., but south-easterly to easterly in the N., strong to a gale over the N. of Scotland and the North Sea, moderate to fresh elsewhere. No change later.

Sea very high in the N.E. of Scotland, rough on our N.E. and S.W. coasts.

Barometer rising in all parts of Western Europe,—briskly in the S.W. Readings high over the N. of Scandinavia, with a large area of low pressure over these Islands. Pressure increasing all day.

Wednesday, April 9.

Weather clear S. of Ireland and some parts of Scandinavia, cloudy or dull generally with rain over greater part of England. Rain general later—heavy in the S.E. at night.

Temperature rather lower on both shores of North Sea, but little changed elsewhere, varying from 48° at Scilly to 39° in the N.E. Maxima between 50° and 55° in the S. and S.W., but only 40° in the N.E.

Wind fresh to strong from the eastward over Scandinavia, the North Sea, and our more northern stations, light from N. in the S. of Ireland, and from W. in the S. of England and N. of France. Wind backing northwards later.

Sea still very high in the N.E. and rough near the Scillys and Hebrides.

Barometer rising generally—most in Scotland. Readings highest N. Sweden, but comparatively high over Spain, while a trough of low pressure lies over England and the Netherlands.

Thursday, April 10.

Weather fine in N. Scotland, but overcast generally with much rain over England. Sky very cloudy all day but weather dry except over France and S.E. of England.

Temperature fallen at most stations, low generally, varying from 47° at Valentia to 37° at Nottingham. Maxima low, only exceeding 50° at Valentia and in western and northern Scotland, and only reaching 39° at Scarborough.

Wind easterly to north-easterly on nearly all coasts, and fresh in force. Not much change during day, but wind increasing in S.E.

Sea rough all along the E. coast and at several western ports.

Barometer had fallen a little over southern France, risen elsewhere. Readings still highest over Gulf of Bothnia, but now lowest over Gulf of Lyons. Rising everywhere during day.

Friday, April 11.

Weather fine or fair over the N. of Scandinavia and the greater part of these Islands, but dull at most continental stations, with rain in the S.W. of France. Slight showers in different parts later.

Temperature fallen generally—most over southern England and N. France. Readings low, varying from 42° at Valentia to 33° at Oxford. Maxima in the S. during day about 40°, and slight frost at night.

Wind easterly to north-easterly over western Europe; moderate or light in force in the N. and N.W., but strong in the S. and blowing a gale in the S.E. Wind becoming more northerly subsequently.

Sea rough in the S.E., S., and S.W.

Barometer risen everywhere—quickly over England. Readings highest over the N. of Scandinavia and to the northward of Scotland; lowest over the S. of France. Slight fall except in the S. during day.

(*Continued over.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	

Saturday, April 12.

Weather unsettled but fair temporarily over the greater part of these Islands, though with snow and hail on our S.E. coasts. Snow in nearly all places during day, the fall being large at Cambridge and Shields.

Temperature risen somewhat in the W., but fallen fast over France, and slightly elsewhere. Readings varying from 44° at Scilly to 33° at Cambridge. Slight frost at a few places in following night.

Wind north-easterly generally, but varying a good deal in direction in different localities; fresh in force over France, but light on our coasts. North-westerly in the Channel at night, but north-easterly elsewhere.

Sea rough in the Straits of Dover.

Barometer rising over France, falling elsewhere; distribution irregular, readings being high over the Baltic, to the northward of Scotland, and over the Bay of Biscay, low over England and the Mediterranean.

Sunday, April 13.

Weather fine in the N. of Scotland and in most parts of Norway and Sweden, dull elsewhere with snow in very many places. Snow ceased but sky still overcast at night.

Temperature inclined to rise on the Continent, except at Toulon, falling over the British Isles, varying over these Islands from 42° at Thurso to 31° at Nottingham, and as low as 34° at Toulon. Very low all day.

Wind generally north-easterly, but variable over Channel and Netherlands, strong in many places and blowing gale at Mullaghmore. Strong gales in S.W. in night.

Sea moderate or slight except at Mullaghmore, Kingstown, and Aberdeen where rough.

Barometer falling everywhere—very slightly in N. Scotland, but quickly in Lapland, on our S.W. coasts, and in S.W. of France. Pressure giving way steadily in S.W. at night.

Monday, April 14.

Weather fine over Scandinavia, at some of our western stations, and in Belgium and the N.E. of France, cloudy or dull elsewhere, with hail and snow at Oxford and Aberdeen; rain in a few places. Rain general later.

Temperature risen except in Sweden and the N. of Scotland—quickly over southern and central France. Varying from 41° at Ardrossan to 34° at Liverpool. Low for season all day, especially in S.W.

Wind south-westerly over the Bay of Biscay and W. France, but drawing into S.E. over the Netherlands, and into E. or N.E. over the Channel and these Islands, blowing a gale in the S.W. Little change later.

Sea high at the mouth of the Channel, rough at most of the more exposed ports, moderate to slight elsewhere.

Barometer falling briskly in the S.W. and slightly generally, but rising in the S.W. of France and the W. of Norway. Rather deep depression lying over N.W. France. Falling all day, except in W. France.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[48.—150.—4/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 16.] WEEK ENDING MONDAY, APRIL 21, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.)				Rainfall. (Amounts in tenths of an inch.)		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	50	28	39	7 below.	2	2	2 less.
	2. ENGLAND, NORTH-EAST	52	30	39	8 below.	4	2	2 less.
	3. ENGLAND, EAST	55	27	41	8 below.	5	7	3 more.
	4. MIDLAND COUNTIES	56	25	41	9 below.	3	3	0 (average).
	5. ENGLAND, SOUTH	58	26	43	7 below.	4	7	3 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	59	27	42	5 below.	2	2	3 less.
	7. ENGLAND, NORTH-WEST	57	30	41	7 below.	3	3	2 less.
	8. ENGLAND, SOUTH-WEST	59	31	45	6 below.	3	6	0 (average).
	9. IRELAND, NORTH	53	29	42	6 below.	3	3	?
	10. IRELAND, SOUTH	56	26	44	5 below.	4	10	4 more.

General Remarks.

Weather fair generally on the 18th, and also over our north-eastern and eastern districts on the 19th; dull and unsettled on all other days, with frequent heavy showers over England. Some snow in the north on the 15th. Temperature considerably below the mean in all districts, the deficit ranging from five degrees in "Scotland, W.," and "Ireland, S.," to nine degrees over the Midland Counties. Changes from cold to milder weather and *vice versâ* were sudden and frequent, the highest readings being mostly recorded either on the 15th or 20th, and the very low values between these dates or on the 21st.

Rainfall less than the mean in Scotland and all the northern parts of England, but more than the mean in "England, E." and "S." and "Ireland, S." The large amount entered to "Ireland, S.," was due to a very heavy fall which occurred on the 19th or morning of the 20th, when 1·73 ins. were measured at Valentia and 0·90 ins. at Roche's Point; this excessive fall does not appear to have been felt at the inland stations in the district.

Wind generally easterly to northerly during the early part of the week, but south-easterly and southerly breezes appearing in the west on the 18th and extending to all districts by the following day. At close of week, however, winds had returned to the eastward. South-easterly to southerly gales felt at some of our western and south-western stations on the 19th.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	48	31	39·9	− 5·8	3	0·65	+0·32
	Aberdeen	47	30	39·1	− 6·5	2	0·06	−0·44
	Glenalmond	50	28	38·4	− 8·1	0	—	?
	Leith	49	30	40·2	− 6·2	1	0·06	−0·32
2. ENGLAND, N.E.	Shields	45	33	39·4	− 7·4	4	0·09	−0·31
	Durham	52	30	39·0	− 8·1	3	0·09	−0·37
	Scarborough	47	36	40·0	− 7·3	6	0·36	−0·02
	York	51	32	40·3	− 7·1	3	0·24	−0·16
	Kelstern (Lincolnshire) ﬀ	47	32	38·5	− 9·4	5	0·31	−0·06
3. ENGLAND, E.	Yarmouth	46	31	39·4	− 8·9	5	0·79	+0·39
	Cambridge	55	30	42·0	− 6·9	5	0·63	+0·31
	Audley End (Saffron Walden) ﬀ	52	29	40·4	− 8·7	6	0·66	+0·32
	Rothamsted	51	27	40·9	− 8·5	5	0·53	+0·10
4. MIDLAND COUNTIES	Nottingham	55	29	40·9	− 7·9	2	0·55	+0·12
	Loughborough	51	30	40·2	− 8·7	2	0·40	+0·02
	Leicester	50	29	40·4	− 8·8	3	0·17	−0·11
	Shrewsbury ﬀ	52	25	39·1	− 9·9	6	0·63	+0·26
	Hereford ﬀ	53	29	41·7	− 8·3	3	0·11	−0·24
	Cirencester	56	29	41·2	− 8·7	2	0·20	−0·26
	Oxford	52	27	40·8	− 9·2	3	0·31	−0·05
5. ENGLAND, S.	London	58	29	42·0	− 7·8	5	0·87	+0·50
	Marlborough ﬀ	58	30	41·7	− 8·2	2	0·20	−0·27
	Strathfield Turgiss ﬀ	56	26	42·2	− 8·0	3	0·32	−0·13
	Dover	50	37	43·3	− 5·9	7	0·68	+0·25
	Hastings	52	34	42·5	− 7·4	5	1·45	+1·02
	Hurst Castle	52	34	43·4	− 6·6	4	0·57	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	53	31	42·0	− 8·8	1	0·10	?
	Glasgow	51	31	40·5	− 6·3	1	0·10	−0·43
	Ardrossan	56	31	43·2	− 3·6	2	0·02	−0·48
	Silloth	59	27	43·3	− 3·3	1	0·06	−0·34
	Douglas (Isle of Man)	48	32	40·6	− 7·2	2	0·73	+0·26
7. ENGLAND, N.W.	Stonyhurst	52	30	40·4	− 7·7	4	0·23	−0·34
	Manchester	52	30	39·5	− 9·3	2	0·43	−0·02
	Liverpool Observatory (Bidston)	53	34	41·7	− 7·1	1	0·03	−0·24
	Holyhead	57	36	44·1	− 4·8	3	0·33	−0·05
8. ENGLAND, S.W.	Pembroke	49	35	43·0	− 7·7	3	0·40	−0·09
	Barnstaple	59	31	45·0	− 5·3	2	0·25	−0·24
	Falmouth	56	36	45·3	− 5·7	3	0·81	+0·24
	Plymouth	59	33	45·6	− 4·6	3	0·68	+0·18
	Prawle Point	56	33	43·7	− 6·7	4	0·84	?
9. IRELAND, N.	Mullaghmore	52	36	42·7	− 5·2	4	0·27	?
	Brookeborough	53	29	42·3	− 5·7	2	0·20	?
	Armagh	49	30	41·4	− 6·4	3	0·46	0·00
	Donaghadee	48	36	42·2	− 5·5	3	0·31	?
10. IRELAND, S.	Dublin	52	32	43·0	− 5·8	4	0·39	−0·21
	Kingstown	51	33	43·0	− 5·8	5	0·29	−0·07
	Parsonstown	55	26	42·9	− 6·1	3	0·28	−0·17
	Roche's Point	56	36	46·4	− 3·6	4	1·22	+0·60
	Valentia	55	35	46·4	− 3·4	5	2·59	+1·77
SCOTLAND, N.†	Sumburgh Head*							
	Stornoway	49	30	39·3	− 4·9	2	0·40	−0·24
	Wick	51	29	40·0	− 4·8	4	0·17	−0·23
—	Scilly (St. Mary's)	57	36	47·2	− 5·0	2	0·64	+0·18
	Jersey (Noirmont)	55	38	45·3	− 5·3	3	0·57	+0·15

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ﬀ" are in connection with the Meteorological Society.

* The returns from this station have not arrived during this week, telegraphic communication being interrupted.

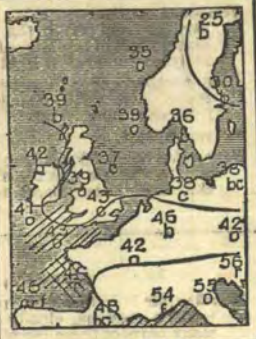
† The returns from Thurso have now ceased.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 21, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, April 15.

Weather fine in Sweden and at some south-eastern stations, dull and unsettled over nearly the whole of western Europe, rain falling in some places, snow at Nottingham and Aberdeen. Rain or snow in many places later on.

Temperature risen in S. and S.E., changed little elsewhere, varying from 47° at Dover, to 33° at Oxford. Maxima 58° in London, and 55° at Cambridge, but between 40° and 50° elsewhere. Cold in the E. in following night.

Wind south-westerly in the W. of France, southerly over the eastern portion of the Channel, but north-easterly on our other coasts. Fresh to strong in the S.W., and blowing a gale at Scilly. Little change later, beyond lulling of wind in S.W.

Sea rough in the S.W., and high off Ushant; slight elsewhere.

Barometer rising somewhat over the greater part of France and the Channel, falling elsewhere, most in Scotland. Depression lying over Brittany all day. Barometer rising in S.W. during day.

Wednesday, April 16.

Weather varying considerably in different localities, fine in Scandinavia, the E. of Scotland, and W. of Ireland; cloudy elsewhere, with steady rain in the S.E. of England and S.W. of France. Slight rain in a few other places later.

Temperature risen in S.W., fallen in the S.E. of England and S.W. of France, changed irregularly elsewhere; cold for season, readings varying from 47° in the S.W. to 36° in N.E. Maxima reaching 50° only in extreme S.W.

Wind generally light to moderate in force, from E. to S.E. on eastern shores of North Sea, from the northward over these Islands and France, and from S.W. in the Netherlands. Wind westerly in S.E. at night.

Sea moderate to smooth round our coasts.

Barometer risen briskly in S.W., fallen elsewhere. Readings still high, Scandinavia and N. Spain, but low pressure now shown over eastern portion of Channel and N. Germany. Depression moving eastward.

Thursday, April 17.

Weather fine at many western and northern stations, but cloudy or dull in the E. and S. Rain falling at Scarboro' and Biarritz. Slight showers occurring in the E. during the day.

Temperature changed irregularly, and varying from 49° at Scilly to 35° at Nairn. Maxima in day between 41° and 53°, frost occurring at a few places at night.

Wind light or moderate on nearly all coasts, from N.E. in Scotland, from the northward in the W., and from N.W. in the S. and S.E. At Toulon a fresh north-westerly gale blowing. A south-south-easterly breeze appearing at Valentia at night.

Sea slight to smooth except at Toulon.

Barometer falling a little in Sweden and off our extreme S.W. coasts, rising elsewhere. Distribution same as on 16th. Band of high pressure forming over western coasts in evening.

Friday, April 18.

Weather very fine over British Isles and on eastern shores of North Sea, rather cloudy in France. Heavy rain over S. Ireland at night, nearly dry elsewhere though overcast in S.E.

Temperature risen a little in the W. and N., fallen in the S.E., and changed irregularly over France, varying from 46° in the S.W. to 32° at Wick. Maxima in day about 50° in the W.; slight frost in S.E. at night.

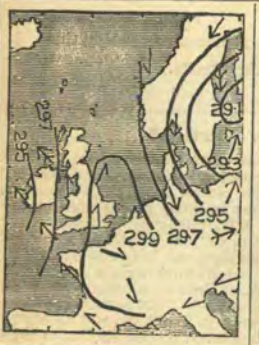
Wind south-easterly to southerly in the W., and fresh in force in the W. of Ireland, light to moderate from the northward in the E. and over the North Sea. The southerly wind spreading eastwards during day.

Sea rather rough Valentia—moderate to slight elsewhere.

Barometer falling slightly at Valentia and over the Baltic, rising elsewhere. Band of high pressure noticed on 17th, moved eastward to Great Britain. Decrease of pressure in Ireland and Sweden continuing.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		**Saturday, April 19.** *Weather* fine at most of the stations in Great Britain, on the eastern shores of the North Sea and in the N.E. France, overcast in the W. of France and over Ireland, with heavy rain S. Ireland. Rain except in N.E. during day. *Temperature* risen in S.W., changed irregularly elsewhere, varying from 49° in the S.W. to 35° at Nairn. Maxima higher than of late in central and western districts, 57° at Holyhead and 55° at Nottingham. *Wind* southerly over these Islands and France, northerly over Scandinavia and Denmark, light in force on our E. coasts, fresh elsewhere. Gale in Ireland extending to Scilly later. *Sea* rough west. *Barometer* rising S.E., falling elsewhere, briskly over Ireland and the Baltic. Depressions near Ireland and over the Gulf of Bothnia. Barometer falling everywhere later.
		Sunday, April 20. *Weather* fair in N. Scotland, in N. Germany, and at some south-western stations, cloudy or dull generally, with rain in many parts of these Islands. Rain general during day. *Temperature* risen a little, except extreme W.,—readings varying from 51° at Scilly to 39° at Leith. Maxima ranging from 57° at Scilly to 42° in the E. *Wind* westerly on our S.W. coasts and over N.W. France, southerly in the S.E. of England, and easterly to south-easterly on our other coasts. Fresh in force in the N.W., moderate elsewhere. Little change later. *Sea* rough S.W. and N.W. *Barometer* falling, except S. Sweden. Well marked depression over Ireland, small subsidiary over S. England. Latter moving eastward during day, former nearly stationary.
		Monday, April 21. *Weather* cloudy or dull and unsettled generally, with rain in some parts of France, and mist at several stations. Slight rain falling subsequently except over central England. *Temperature* little changed—varying from 50° at Scilly to 39° at Yarmouth. Maxima ranging from 57° at Scilly to 42° in the S.E. *Wind* principally north-easterly on our coasts, but north-westerly on our extreme S.W. coasts, and south-westerly to westerly over the Bay of Biscay. Moderate in force generally, but blowing a gale at Mullaghmore. *Sea* rough off Mullaghmore and Dover. *Barometer* rising over Scandinavia and the British Isles; falling over France. Readings highest over Scotland, with depressions over Ireland, France, and the S. of Norway. Barometer rising everywhere during day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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VOL. II. No. 17.] WEEK ENDING MONDAY, APRIL 28, 1879. [*Price 2d.*
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The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	57	34	42	6 below.	5	6	1 more.
	2. ENGLAND, NORTH-EAST	60	31	44	5 below	4	6	2 more.
	3. ENGLAND, EAST	62	30	45	5 below.	5	4	0 (average).
	4. MIDLAND COUNTIES	60	28	46	5 below.	4	5	1 more.
	5. ENGLAND, SOUTH	62	27	47	5 below.	5	5	0 (average).
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	59	31	44	4 below.	3	4	0 (average).
	7. ENGLAND, NORTH-WEST	55	29	46	5 below.	4	7	3 more.
	8. ENGLAND, SOUTH-WEST	62	40	49	3 below.	4	7	2 more.
	9. IRELAND, NORTH	57	37	46	3 below.	4	5	?
	10. IRELAND, SOUTH	62	41	49	2 below.	5	6	1 more.

General Remarks.

Weather generally cloudy and changeable, but finer during the latter part of the week than at its commencement. Thunderstorms at many of our southern and midland stations on the 26th and 27th. Temperature again below the mean, the deficit ranging from two degrees in "Ireland, S.," to six degrees in "Scotland, E." Highest day temperatures below 50° in many places during the early part of the week, and as low as 40° at Durham on the 24th. Thermometer subsequently rising, and maxima for week occurring in most places either on the 26th or 27th, but the highest readings even at that time very slightly above 60°. Some night frosts over Great Britain during the early part of the week.

Rainfall a little more than the mean in most districts. Rain most prevalent during the first few days, but heavy local fall accompanied thunderstorm at Roche's Point on the 27th.

Wind continuing northerly or easterly during the early part of the week, but shifting to the southward or south-westward on the 25th. North-easterly breezes returning on the 27th, and still prevailing at close of period. Winds light or moderate in force generally.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	51	36	41·8	− 5·0	4	0·24	−0·12
	Aberdeen	47	37	41·5	− 5·5	5	1·10	+0·61
	Glenalmond	57	34	40·4	− 7·3	6	0·83	?
	Leith	53	35	42·5	− 5·2	3	0·24	−0·11
2. ENGLAND, N.E.	Shields	50	35	41·7	− 6·6	5	0·69	+0·29
	Durham	57	36	42·2	− 6·2	5	0·79	+0·34
	Scarborough	56	39	43·5	− 5·3	4	0·45	+0·07
	York	60	32	46·0	− 2·8	5	0·60	+0·20
	Kelstern (Lincolnshire) ♔	58	31	43·9	− 5·7	3	0·21	−0·15
3. ENGLAND, E.	Yarmouth	54	33	42·7	− 7·1	5	0·33	−0·08
	Cambridge	62	31	47·2	− 3·3	5	0·45	+0·11
	Audley End (Saffron Walden) ♔	59	30	44·9	− 5·7	4	0·37	+0·01
	Rothamsted	58	30	45·2	− 5·6	6	0·33	−0·11
4. MIDLAND COUNTIES	Nottingham	60	28	46·7	− 3·6	3	0·31	−0·12
	Loughborough	58	28	45·1	− 5·2	2	0·25	−0·13
	Leicester	58	29	45·6	− 5·0	4	0·34	+0·04
	Shrewsbury ♔	56	29	43·9	− 6·8	6	0·50	+0·10
	Hereford ♔	58	31	45·8	− 5·5	4	0·48	+0·11
	Cirencester	60	28	46·1	− 5·1	?5	0·77	+0·31
	Oxford	58	30	46·1	− 5·3	6	0·90	+0·53
5. ENGLAND, S.	London	62	33	47·2	− 4·0	5	0·32	−0·06
	Marlborough ♔	59	27	46·1	− 5·2	5	1·00	+0·52
	Strathfield Turgiss ♔	61	29	46·3	− 5·0	6	0·56	+0·10
	Dover	54	39	46·6	− 3·7	3	0·17	−0·25
	Hastings	57	36	46·2	− 4·8	4	0·31	−0·11
	Hurst Castle	55	33	46·8	− 4·3	4	0·43	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	55	31	44·9	− 2·1	1	0·12	?
	Glasgow	54	36	43·5	− 4·5	5	0·47	−0·07
	Ardrossan	56	37	44·9	− 3·1	5	0·66	+0·16
	Silloth	59	34	45·9	− 2·3	3	0·34	−0·06
	Douglas (Isle of Man)	52	32	42·2	− 6·8	3	0·49	+0·04
7. ENGLAND, N.W.	Stonyhurst	55	29	43·8	− 5·6	4	0·63	+0·07
	Manchester	54	29	44·7	− 5·7	4	1·16	+0·71
	Liverpool Observatory (Bidston)	55	34	46·2	− 4·1	5	0·74	+0·47
	Holyhead	54	42	47·1	− 3·2	4	0·28	−0·07
8. ENGLAND, S.W.	Pembroke	54	42	47·2	− 4·6	2	0·26	−0·22
	Barnstaple	62	40	50·9	− 0·8	4	1·23	+0·75
	Falmouth	56	44	50·2	− 2·1	5	1·17	+0·60
	Plymouth	58	42	50·4	− 1·0	4	0·33	−0·16
	Prawle Point	56	42	47·7	− 4·0	6	0·64	?
9. IRELAND, N.	Mullaghmore	56	39	46·7	− 2·4	5	0·53	?
	Brookeborough	57	37	46·1	− 2·9	4	0·68	?
	Armagh	55	40	46·3	− 2·8	4	0·21	−0·22
	Donaghadee	51	38	44·6	− 4·3	4	0·40	?
10. IRELAND, S.	Dublin	60	42	47·8	− 2·4	5	0·33	−0·23
	Kingstown	62	42	47·1	− 2·9	6	0·42	+0·04
	Parsonstown	61	41	48·9	− 1·1	4	0·57	+0·01
	Roche's Point	59	43	50·7	− 0·4	5	1·28	+0·66
	Valentia	57	42	49·6	− 1·3	4	0·60	−0·17
SCOTLAND, N.	Sumburgh Head*							
	Stornoway	46	35	40·9	− 4·4	3	0·40	−0·19
	Wick	50	34	41·4	− 4·5	3	0·35	−0·05
———	Scilly (St. Mary's)	56	46	50·4	− 2·9	4	0·51	+0·07
	Jersey (Noirmont)	54	41	48·6	− 3·0	4	0·56	+0·16

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "♔" are in connection with the Meteorological Society.
* The returns from this station have not arrived during this week, telegraphic communication being interrupted.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending April 28, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, April 22.

Weather clear and bright in many parts of Scandinavia and over central England; cloudy or dull generally, with rain at Prawle Point and Paris. Rain falling, except in the N.E., later.

Temperature risen in W. and fallen in E. of France, changed little elsewhere. Readings varying from 52° at Scilly to 38° at Nottingham. Maxima low generally, and diurnal range small.

Wind easterly over northern parts of the North Sea and at our northern and north-western stations, westerly over France and the Channel, northerly on our S.E. coasts, variable elsewhere; light to moderate in force generally. Backing to S. in S.W. at night.

Sea moderate to smooth on our coasts.

Barometer rising briskly in S.W. France, and slightly over Scandinavia and south-eastern England, falling elsewhere. Depressions over Ireland, N. Germany, and Lapland. Barometer falling all day.

Wednesday, April 23.

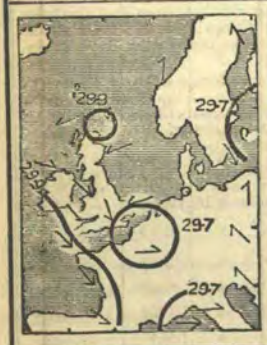
Weather dull and unsettled, rainy in W. France, at Oxford, in London, and in the N.E. of Scotland. Rain falling over these Islands, except in the extreme N. of Scotland, during day.

Temperature rather higher in S. and over France than on 22nd, but slightly lower elsewhere, varying from 51° at Scilly to 40° at Scarborough and 38° at Nairn. Maxima rather higher than on previous day.

Wind north-westerly on our S.W. coasts, westerly to south-westerly over France, and south-easterly to easterly in the E. and N., moderate to fresh in force. North-westerly gale springing up locally at Scilly later, and continuing for several hours.

Sea rough off the Hebrides, moderate to slight elsewhere.

Barometer rising in S.W. of France and at Valentia, but still falling generally elsewhere. Depression over our south-western stations moving south-eastward, and general recovery later.



Thursday, April 24.

Weather fine in S. of Ireland, dull generally with rain at several stations. Rain falling in Ireland and over northern and central England in the course of the day.

Temperature changed irregularly, varying at 8 A.M. from 52° at Valentia to 36° at Nairn. Following night cold in the S.E.

Wind northerly on most of our coasts, but north-westerly at our south-western stations as well as over the western part of the Channel and W. of France. Blowing freshly in the S.W. but light elsewhere.

Sea rough on our S.W. coasts and the N.W. of France.

Barometer rising over the whole of western Europe, quickly in the S.W. Readings highest over the Peninsula and Bay of Biscay, uniformly low over the eastern portion of our area.

Friday, April 25.

Weather fine over the greater part of Scandinavia, N. Germany, and the extreme S.E. of England, cloudy in most other places, with mist at a few stations, and rain in the N.W. Rain general.

Temperature risen slightly most places, varying from 52° at Valentia to 40° in the N.E. of Scotland. Maxima during day 62° at Kingstown and 60° at Nottingham.

Wind southerly (S.W. to S.E.) over the Channel and on most of our coasts, variable over Scandinavia, and westerly to north-westerly in the S.W. of France. Fresh at Scilly, but light generally.

Sea rough on the W. coast of Ireland, and near Scilly.

Barometer rising over the greater part of our area, but falling rather briskly in Ireland. Well marked depression passing northward outside our western coasts during the day.

(Continued over.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, April 26.

Weather dull and rainy in Scotland, cloudy and showery in the W. and over France, fair over England. Slight rain showers occurring in most places during the day.

Temperature fallen on our extreme western coasts, risen in most other places; varying from 51° on our S.W. coasts and at Nottingham, to 41° at Stornoway. Maxima high over England; 62° in London, and 60° at several inland stations.

Wind westerly in the S., south-westerly over Ireland and the W. of England, and easterly in N. Scotland. Wind backing generally later in day.

Sea rough round our S.W. coasts and the N.W. of France.

Barometer falling over the whole of western Europe, and depression advancing on our western coasts. Disturbance moving south-eastwards during day, and pressure increasing in Scotland

Sunday, April 27.

Weather dull or cloudy generally, with rain in the N.E. of Scotland, at Prawle Point, and Paris. Thunderstorms in afternoon over the S. of Ireland and England; weather subsequently fine. Rain in most places during some part of the day.

Temperature several degrees lower over these Islands than on 26th, especially in the E.; slightly higher at most continental stations, varying from 50° in the S.W. to 40° at Nairn. Maxima 60° in London and 62° at Cambridge.

Wind light or moderate, except at Stornoway; easterly in the N., and northerly to north-easterly elsewhere. Wind backing a little generally by the evening.

Sea high at Scilly, rough in the S.W. generally.

Barometer falling briskly over France and the Channel, rising elsewhere. Depression shown over the N.W. of France and the Channel, and moving south-eastwards towards Switzerland.

Monday, April 28.

Weather fine over the greater part of Scandinavia and at most of our more western and northern stations; cloudy or dull elsewhere, with rain at Jersey and Paris. Scarcely any rain in our Islands during day.

Temperature a little higher on our north-eastern and northern coasts, lower in most other places; varying from 51° at Valentia to 42° in the N.E. Maxima during day not exceeding 55° except at Valentia.

Wind north-easterly over the North Sea, northerly to north-north-easterly on our coasts and over the Channel, north-westerly in the S.W. and S. of France. Light or moderate in force except in S. France and at Scilly.

Sea rough at Scilly, Biarritz, and Toulon.

Barometer falling slightly in the extreme S. of France; rising rather briskly elsewhere. Readings highest off our N.W. coasts, lowest over Switzerland and N. Italy.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⇒ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

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[48.—150.—5/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 18.] WEEK ENDING MONDAY, MAY 5, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.)				Rainfall. (Amounts in tenths of an inch.)		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	65	28	45	3 below.	2	1	3 less.
	2. ENGLAND, NORTH-EAST	70	29	43	7 below.	2	2	2 less.
	3. ENGLAND, EAST	68	26	43	9 below.	4	2	2 less.
	4. MIDLAND COUNTIES	69	26	44	8 below.	2	1	3 less.
	5. ENGLAND, SOUTH	67	24	44	8 below.	3	6	1 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	61	28	45	4 below.	2	2	3 less.
	7. ENGLAND, NORTH-WEST	61	31	45	7 below.	2	2	2 less.
	8. ENGLAND, SOUTH-WEST	65	33	47	6 below.	2	2	4 less.
	9. IRELAND, NORTH	60	28	45	5 below.	1	less than ½	?
	10. IRELAND, SOUTH	64	29	48	4 below.	1	1	5 less.

General Remarks.

Weather very fine generally, but some cloud in "England, S." and "S.W." on April 30th and morning of May 1st; cloudy, rainy weather setting in over the north of Ireland and Scotland at the close of the week. Showers of snow in some parts of England, and unusually heavy snowstorm in Wiltshire on May 1st. Temperature again below the mean; the deficit not great in Scotland (where the thermometer was high in the daytime from the 2nd to the 5th) nor in "Ireland, S.," but amounting to as much as nine degrees over "England, E." Maxima rather high generally on May 5th, ranging from 65° to 70° at the inland stations over the greater part of England. Nights very cold and frosts frequent; lowest reading of all being that at Strathfield Turgiss on the 3rd, when the sheltered thermometer fell to 24°. The mean daily range at the inland stations in England varied from 20° to 25°.

Rainfall more than the mean in "England, S.," (owing to the heavy snowstorm referred to above), but less in all other districts, particularly in Ireland. Scarcely any rain was measured in our islands on the 2nd, 3rd, or 4th.

Wind generally northerly or north-easterly over England, but shifting to the southward (S.E. to S.W.) in Ireland and Scotland during the latter part of the week. South-westerly winds freshening in the north of Scotland on May 5th, with an unsettled appearance.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	Rainfall. No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	61	30	46·3	− 1·5	1	0·08	−0·28
	Aberdeen	65	30	44·3	− 3·9	2	0·17	−0·29
	Glenalmond	62	28	43·2	− 5·7	1	0·05	?
	Leith	65	30	46·2	− 2·6	2	0·03	−0·34
2. ENGLAND, N.E.	Shields	64	34	42·8	− 7·0	2	0·05	−0·34
	Durham	70	29	43·7	− 6·2	3	0·07	−0·37
	Scarborough	63	35	43·3	− 7·0	1	0·26	−0·14
	York	68	29	45·1	− 5·2	3	0·14	−0·26
	Kelstern (Lincolnshire) ✠	65	29	41·7	− 9·4	2	0·24	−0·11
3. ENGLAND, E.	Yarmouth	50	35	42·7	− 8·4	2	0·09	−0·32
	Cambridge	68	29	45·3	− 6·7	3	0·25	−0·12
	Audley End (Saffron Walden) ✠	63	26	42·0	−10·1	2	0·26	−0·12
	Rothamsted	64	28	42·7	− 9·4	7	0·26	−0·16
4. MIDLAND COUNTIES	Nottingham	69	27	44·8	− 6·9	1	0·02	−0·43
	Loughborough	68	27	44·6	− 7·2	2	0·06	−0·35
	Leicester	65	27	44·0	− 8·0	1	0·07	−0·25
	Shrewsbury ✠	61	26	41·2	−10·9	3	0·07	−0·35
	Hereford ✠	67	28	44·8	− 8·0	3	0·14	−0·26
	Cirencester	67	29	44·1	− 8·6	4	0·52	+0·06
	Oxford	65	31	43·6	− 9·1	2	0·12	−0·27
5. ENGLAND, S.	London	65	30	45·1	− 7·3	4	0·25	−0·14
	Marlborough ✠	66	29	43·3	− 9·4	3	0·84	+0·36
	Strathfield Turgiss ✠	67	24	43·5	− 9·1	4	1·12	+0·70
	Dover	56	36	44·5	− 6·8	1	0·04	−0·37
	Hastings	62	34	44·0	− 8·2	5	0·45	+0·03
	Hurst Castle	62	34	44·7	− 7·7	3	0·10	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	60	33	45·0	− 3·3	1	0·38	?
	Glasgow	61	31	45·9	− 3·5	2	0·14	−0·40
	Ardrossan	59	33	45·9	− 3·5	1	0·12	−0·38
	Silloth	61	28	45·2	− 4·5	3	0·40	0·00
	Douglas (Isle of Man)	59	30	44·7	− 5·5	1	0·13	−0·29
7. ENGLAND, N.W.	Stonyhurst	59	31	44·2	− 6·6	3	0·35	−0·18
	Manchester	61	32	43·7	− 7·9	2	0·27	−0·17
	Liverpool Observatory (Bidston)	56	34	45·0	− 6·7	3	0·22	−0·07
	Holyhead	57	39	45·8	− 5·5	1	0·09	−0·25
8. ENGLAND, S.W.	Pembroke	57	36	45·7	− 7·3	2	0·10	−0·38
	Barnstaple	65	33	49·7	− 3·2	1	0·02	−0·45
	Falmouth	59	37	46·8	− 7·0	2	0·12	−0·43
	Plymouth	63	36	46·9	− 5·8	2	0·36	−0·12
	Prawle Point	60	33	45·4	− 7·5	3	0·31	?
9. IRELAND, N.	Mullaghmore	56	34	45·9	− 4·5	1	0·11	?
	Brookeborough	60	28	43·6	− 7·5	0	—	?
	Armagh	59	32	45·4	− 5·1	1	0·02	−0·19
	Donaghadee	58	35	45·7	− 4·5	1	0·04	?
10. IRELAND, S.	Dublin	61	33	46·2	− 5·0	1	0·04	−0·48
	Kingstown	60	35	46·5	− 4·5	2	0·04	−0·33
	Parsonstown	62	29	46·8	− 4·0	0	—	−0·48
	Roche's Point	64	39	50·8	− 1·2	1	0·01	−0·65
	Valentia	60	36	47·2	− 4·8	1	0·14	−0·58
SCOTLAND, N.	Sumburgh Head*							
	Stornoway	54	33	44·0	− 2·6	2	0·36	−0·19
	Wick	59	30	43·9	− 2·9	2	0·21	−0·13
—	Scilly (St. Mary's)	56	42	49·2	− 5·2	1	0·04	−0·32
	Jersey (Noirmont)	57	40	46·9	− 5·7	2	0·02	−0·38

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "✠" are in connection with the Meteorological Society.

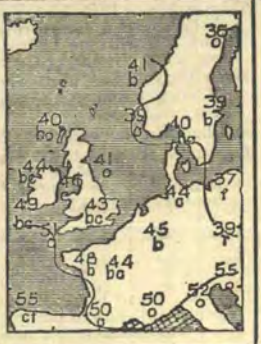
* The returns from this station have not arrived during this week, telegraphic communication being interrupted.

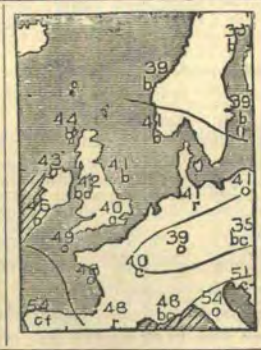
II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending May 5, 1879.

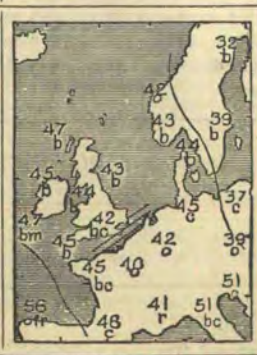
Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.







Weather during the 24 hours succeeding the date of the Charts.

Tuesday, April 29.

Weather very fine over nearly the whole of western Europe, but cloudy or dull at a few north-eastern stations, at the mouth of the Channel, and in the S. and S.E. of France. Fine all day, scarcely any rain.

Temperature changes slight and irregular. Readings varying from 51° at Scilly to 40° at Stornoway. Maxima generally between 50° and 57° except in the N.E. where lower. Rather cold night in the E.

Wind northerly on most of our coasts (north-westerly in the N., north-easterly in the S.), northerly over the North Sea and the greater part of France, but westerly in the S. and S.W. of that country. Fresh in the Straits of Dover, moderate or light elsewhere. North-westerly in the W. at night.

Sea nearly smooth.

Barometer very steady except over S. Norway. Readings high and uniform, these Islands, low over Baltic and Mediterranean. Barometer falling in W. at night.

Wednesday, April 30.

Weather become cloudy or dull over England and S. Ireland; fine elsewhere. Some haze London and Prawle Point. Rain falling in the Netherlands. Some rain at our southern and central stations during day.

Temperature fallen over central France; changed little elsewhere. Varying from 51° at Scilly to 38° at Nairn. Thermometer reaching 58° at Cork, but maxima ranging between 45° and 55° elsewhere.

Wind light or moderate in all places—from N.W. in the S. of France, from E. over the Bay of Biscay, and from N. on our eastern coasts. Very variable airs in W. and N.W. Wind becoming more easterly later.

Sea slight to smooth.

Barometer rising in the S. of France, the S. of Norway, and over Sweden; falling elsewhere. Readings high and uniform over the British Isles and France; relatively low over Baltic; lowest at Toulon.

Thursday, May 1.

Weather dull on our S.W. coasts and over W. France; rain at Oxó and Cuxhaven; elsewhere the sky clear or nearly so. Rain and snow showers in S. and S.W. during day, and unusually heavy snow in Wilts; soon snowing.

Temperature rather lower over these Islands than on 30th; little changed elsewhere. Readings uniformly low over the whole of western Europe. Maxima low generally.

Wind north-easterly over the North Sea and our E. coast, drawing into E. over the Channel, and into S.E. in W. Ireland. Light to moderate, except at Valentia and Mullaghmore. Freshening considerably in S.E. and S. later.

Sea slight to calm, except near Valentia.

Barometer rising over Norway and Scotland; falling elsewhere. Readings high over western Europe, ranging from 30·28 ins. in Scotland to 29·96 ins. at Toulon. Anticyclone forming in N. later.

Friday, May 2.

Weather exceedingly fine over these Islands, Scandinavia, and N Germany, but rather cloudy over eastern and southern France, with rain at Toulon. The only rain reported fell in S. France and at Christiansund.

Temperature risen slightly at most of our stations, but fallen in the S. and over France. Very uniform, between 40° and 48° over western Europe. Maxima low for season. Night intensely sharp over England; much frost.

Wind south-easterly in Ireland, southerly in W. Scotland, northerly over the North Sea, and noth-easterly over the S. of England and France. North-easterly current blowing freshly. No change during day.

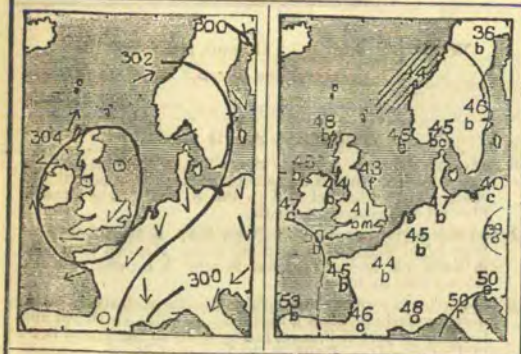
Sea moderate to calm, except off Cape Gris Nez.

Barometer rising, except in S.E. of France. Ant cyclone, noticed above, spreading southward and lying all over W. and N.W. coasts. Readings ranging from 30·45 ins. at Kingstown to 29·78 ins. at Toulon. No change later.

(Continued over.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.



Saturday, May 3.

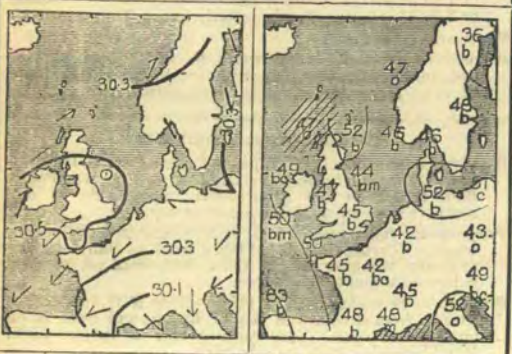
Weather still exceedingly fine, except in the S. of France, where it remains cloudy. Sky nearly clear all day in our Islands, the only rain over western Europe being a few hundredths of an inch at Christiansund.

Temperature a little higher on our W. and N. coasts, very little changed elsewhere; still very uniform between 40° and 50°. Maxima higher in Scotland than of late, but again low elsewhere; Cork was (locally) very mild.

Wind little altered, southerly in the W., northerly over the North Sea, and north-easterly in the S. Variable airs at central stations.

Sea slight to calm, except at Christiansund.

Barometer risen a little generally. The anticyclone still lying over the whole of the United Kingdom (Kingstown 30·5 ins.), while a small depression over Mediterranean, Toulon (29·84 ins.)



Sunday, May 4.

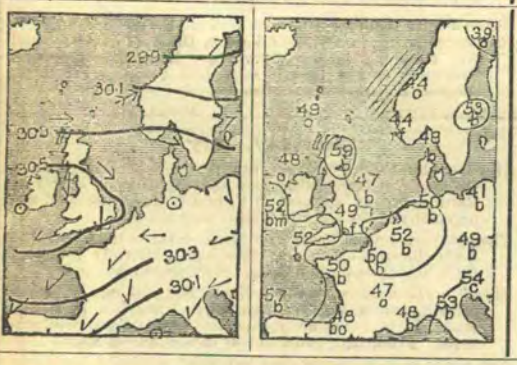
Weather overcast in the Hebrides and at Christiansund, very fine elsewhere, and the only rainfall during the day was a few hundredths at the same two northern stations.

Temperature risen all places, most in N., uniform between 40° and 50° over nearly the whole of western Europe, but slightly exceeding that limit in N. Germany. Maxima higher than of late, particularly in Scotland, where also nights now became warmer.

Wind south-westerly to southerly in the W. and N., north-easterly to easterly in the E. and S., light or moderate except in the Hebrides. No change later.

Sea slight to calm, except in the Minch.

Barometer rising except at Christiansund. Anticyclone lying over England and Ireland, and pressure slowly decreasing to northward of Scotland and southward of France.



Monday, May 5.

Weather changing in N., cloudy or dull over the N. of Ireland, Scotland, and Scandinavia, with rain at Skudesnaes; very fine elsewhere. Weather fine all day over England, but sudden change to cloud, and rain occurring in night.

Temperature risen slightly most places, varying from 52° in S.W. and 59° at Aberdeen, to 39° at Cambridge. Maxima higher than previous day, 69° at Nottingham and 68° at York and Cambridge.

Wind westerly to south-westerly in the N., easterly to north-easterly in the S., with light variable breezes in intervening space. Fresh at Stornoway and blowing gale at Christiansund.

Sea rough in the Minch, moderate to calm elsewhere.

Barometer still falling in Scotland and over countries to eastward of North Sea, but rising over France, England, and Ireland. Anti-cyclone still over us. Pressure giving way briskly in the N. and E. at night.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[48.—150.—5/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 19.] WEEK ENDING MONDAY, MAY 12, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	63	31	44	6 below.	3	2	2 less.
	2. ENGLAND, NORTH-EAST	64	27	43	9 below.	5	3	1 less.
	3. ENGLAND, EAST	64	25	43	10 below.	4	1	3 less.
	4. MIDLAND COUNTIES	64	25	44	9 below.	4	2	3 less.
	5. ENGLAND, SOUTH	64	26	44	9 below.	4	2	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	58	29	45	6 below.	4	4	2 less.
	7. ENGLAND, NORTH-WEST	59	30	44	8 below.	3	3	1 less.
	8. ENGLAND, SOUTH-WEST	64	31	47	8 below.	4	3	2 less.
	9. IRELAND, NORTH	58	32	45	6 below.	5	6	?
	10. IRELAND, SOUTH	62	32	47	6 below.	4	2	4 less.

General Remarks.

Weather cloudy, showery, and unsettled generally, but rather finer during the latter half of the week than at first. Snow and hail showers in many places on the 6th, 7th, and 8th. Temperature again very much below the mean, the deficit ranging from six degrees over Scotland and Ireland to ten degrees over "England, E." Highest shade readings occurred generally on the 12th, when 62° was reached in "Ireland, S.," 63° in "Scotland, E.," and 64° at many of the English stations. Night frosts not very general, but a rather severe one was experienced over England on the 10th, when the sheltered thermometer fell to 27° in the north-eastern, 26° in the southern, and 25° in the midland and eastern districts.

Rainfall a little less than the mean in all districts, the deficit being greatest in "Ireland, S." A considerable fall occurred at Laudale ("Scotland, W.") on the 10th, and snow on the hill tops.

Wind northerly during the early part of the week, but shifting to W. and S.W. on the 11th. Northerly gale on our north and east coasts on the 6th, and winds fresh in force during two following days, afterwards falling moderate.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	57	34	43·2	− 5·6	4	0·10	−0·26
	Aberdeen	59	33	42·9	− 6·6	4	0·36	−0·08
	Glenalmond	63	31	42·5	− 7·4	1	0·12	?
	Leith	62	35	46·0	− 4·0	2	0·04	−0·34
2. ENGLAND, N.E.	Shields	60	32	42·7	− 8·1	5	0·27	−0·12
	Durham	64	29	42·2	− 8·8	4	0·30	−0·13
	Scarborough	56	34	43·7	− 7·9	4	0·22	−0·18
	York	61	27	43·5	− 8·1	5	0·24	−0·15
	Kelstern (Lincolnshire) ﬀ	60	29	41·8	−10·5	6	0·26	−0·06
3. ENGLAND, E.	Yarmouth	54	35	42·7	− 9·6	4	0·11	−0·30
	Cambridge	64	28	44·8	− 8·5	4	0·16	−0·22
	Audley End (Saffron Walden) ﬀ	60	25	42·4	−11·1	3	0·07	−0·32
	Rothamsted	61	28	42·9	−10·6	3	0·06	−0·35
4. MIDLAND COUNTIES	Nottingham	62	25	44·3	− 8·6	5	0·26	−0·20
	Loughborough	60	25	44·2	− 8·8	4	0·30	−0·14
	Leicester	59	27	43·3	−10·0	5	0·19	−0·18
	Shrewsbury ﬀ	60	32	44·2	− 9·1	3	0·09	−0·35
	Hereford ﬀ	63	30	45·7	− 8·2	2	0·18	−0·23
	Cirencester	64	28	44·6	− 9·2	3	0·09	−0·38
	Oxford	60	29	44·3	− 9·6	4	0·09	−0·30
5. ENGLAND, S.	London	64	33	44·6	− 9·0	4	0·12	−0·27
	Marlborough ﬀ	63	28	43·9	− 9·9	4	0·09	−0·39
	Strathfield Turgiss ﬀ	63	26	43·9	− 9·9	2	0·16	−0·23
	Dover	56	34	44·8	− 7·6	3	0·17	−0·25
	Hastings	56	29	42·4	−10·8	4	0·22	−0·18
	Hurst Castle	56	32	44·3	− 9·3	4	0·17	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	54	31	43·1	− 6·4	5	0·93	?
	Glasgow	58	33	44·9	− 5·8	3	0·12	−0·42
	Ardrossan	57	35	45·4	− 5·0	5	0·23	−0·27
	Silloth	57	34	45·1	− 5·8	3	0·29	−0·11
	Douglas (Isle of Man)	57	29	44·0	− 7·3	3	0·29	−0·11
7. ENGLAND, N.W.	Stonyhurst	56	31	41·9	−10·0	3	0·35	−0·18
	Manchester	57	30	42·9	− 9·9	4	0·17	−0·24
	Liverpool Observatory (Bidston)	56	36	45·4	− 7·3	3	0·18	−0·12
	Holyhead	59	40	46·5	− 5·8	3	0·46	+0·12
8. ENGLAND, S.W.	Pembroke	56	34	45·5	− 8·5	5	0·13	−0·30
	Barnstaple	64	33	48·7	− 5·4	4	0·28	−0·18
	Falmouth	60	38	47·2	− 7·8	4	0·34	−0·23
	Plymouth	58	35	47·4	− 7·5	5	0·33	−0·14
	Prawle Point	57	31	44·9	− 9·0	4	0·29	?
9. IRELAND, N.	Mullaghmore	54	38	45·7	− 5·6	6	0·58	?
	Brookeborough	56	34	44·8	− 6·3	4	0·64	?
	Armagh	58	32	44·1	− 7·5	4	0·56	+0·18
	Donaghadee	57	34	45·4	− 5·9	5	0·56	?
10. IRELAND, S.	Dublin	59	32	46·1	− 6·1	4	0·11	−0·39
	Kingstown	60	33	45·4	− 6·5	3	0·08	−0·28
	Parsonstown	60	33	45·8	− 5·9	3	0·21	−0·29
	Roche's Point	62	36	47·9	− 5·0	4	0·07	−0·63
	Valentia	58	34	47·2	− 5·6	4	0·27	−0·41
SCOTLAND, N.	Sumburgh Head*							
	Stornoway	51	30	41·3	− 6·4	6	0·30	−0·26
	Wick	55	31	40·7	− 7·3	5	0·31	+0·01
——	Scilly (St. Mary's)	56	41	48·0	− 7·2	5	0·36	+0·06
	Jersey (Noirmont)	57	37	45·5	− 8·1	2	0·15	−0·25

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ﬀ" are in connection with the Meteorological Society.
* The returns from this station have not arrived during this week, telegraphic communication being interrupte

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending May 12, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, May 6.

Weather changed very suddenly, rain falling on our E. and S. coasts, and on eastern shores of North Sea, but sky still nearly clear in N.W. and over France. Showers of snow, sleet, and hail subsequently falling, except at some western stations.

Temperature higher over France than on the 5th, lower elsewhere,—change greatest in Scotland. Readings varying from 50° in S.W. to 38° at Aberdeen. Maxima during day low generally.

Wind northerly on most of our coasts, but drawing into N.E. over the Bay of Biscay, and into N.W. over the North Sea. Strong to a gale in the N. and N.E., falling lighter at night.

Sea rough in N., N.W., and N.E.

Barometer, after falling very quickly over these Islands and rapidly over Scandinavia, beginning to rise again in N.W. Readings highest in W. Ireland; large depression over Sweden, and a subsidiary disturbance over North Sea. Recovery later.

Wednesday, May 7.

Weather fine over Norway and Denmark, dull and unsettled elsewhere, showers of sleet, hail, and rain in many places. Cloudy or dull all day with slight cold showers.

Temperature several degrees lower generally than on 6th; very low for season, varying from 46° at Scilly to 36° at York. Maxima below 50°, except in S. of Ireland and at Nottingham.

Wind northerly on most of our coasts, but drawing into N.E. in the S. and over France. Fresh to strong and squally generally, and rising to a gale at Scilly during day.

Sea rough on nearly all parts of our coasts.

Barometer falling slowly over these Islands and quickly over France, rising in Scandinavia. Readings still highest over Ireland, lowest over Baltic. Little change later.

Thursday, May 8.

Weather fine over Sweden, N. Germany, the N. of France, and at some S. coast stations, cloudy or dull elsewhere with heavy snow at Lyons. Showers of snow or rain general later.

Temperature a little higher over these Islands, but lower over France particularly in the S.E. Readings ranging over these Islands from 47° in the W. to 40° in the S.E., and to 35° at Lyons. Maxima higher than on 7th.

Wind westerly to north-westerly in the N., northerly over our more southern stations and north-easterly over France. Moderate to fresh in force. Increasing from N.W. in the S.W. at night.

Sea moderate to smooth.

Barometer falling at all the more northern stations—rapidly in N. Scotland—rising somewhat in the S. Depression passing from W. to E. to northward of Scotland during day.

Friday, May 9.

Weather fine in the N.E. of France and at a few Scotch stations; cloudy or dull generally, with rain in some places; snow showers in N. Scotland. Showers in N. and W. during day.

Temperature much lower in the N. but rather higher in the S. and S.W. than on 8th, varying from 50° at Scilly to 32° at Wick. Maxima generally low for season, thermometer only reaching 42° at Stornoway.

Wind northerly on most of our coasts, but drawing into W. over the Channel and S. of England, and into S.W. on the eastern shores of the North Sea. Fresh in force. No change later.

Sea moderate to slight.

Barometer rising over Scotland and N. of England; falling elsewhere—briskly over S. England and over Norway. Readings highest to the westward of these Islands, with depressions over Norway, the North Sea, S. England, and S. France.

(Continued over.)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, May 10. *Weather* finer than of late over these Islands, but still cloudy at several stations and on the Continent. Snow or hail showers reported from Skudesnaes and Dover. Rain in the W. during day. *Temperature* risen somewhat at our northern stations and in S. France; fallen elsewhere. Varying from 46° at Scilly to 36° at Wick. Maxima very low, thermometer not reaching 55° at any station. *Wind* northerly over the whole of these Islands and France, but north-westerly over the North Sea. Moderate in force generally. Wind backing to S.W. in W. later, and rising to a gale at Stornoway. *Sea* rough near Christiansund, moderate to smooth elsewhere. *Barometer* rising over nearly the whole of western Europe. Readings highest over Ireland, with depressions over Sweden and the S.E. of France. Barometer falling rather briskly in N.W. later.
		Sunday, May 11. *Weather* dull and unsettled in nearly all parts of western Europe, except Denmark and N. Germany; rain at Valentia and over central England. Some rain falling except in the S.W. during the day. *Temperature* fallen in the W. and S. of France, risen elsewhere, most in the W. Readings varying from 52° at Scilly to 41° at York. Maximum in London only 49°, and at Hurst Castle only 47°. *Wind* westerly to south-westerly over the Channel, the British Isles, and the eastern shores of the North Sea, but northerly over France. Moderate in force generally. Little change later. *Sea* rough at Stornoway, moderate to smooth elsewhere. *Barometer* rising over France, N. Germany, and Scandinavia, falling at our stations. Readings highest over France, with a large depression lying to the northward of Scotland, and a small subsidiary disturbance in the S.W. Depressions moving eastward later and barometer rising in W.
		Monday, May 12. *Weather* dull on our western coasts and showery in the N.W., moderately fine elsewhere. Mist reported over the Channel. Rain subsequently falling in the W. and N.W. *Temperature* several degrees higher over Great Britain and the N. of France, and slightly higher over Scandinavia, little change elsewhere. Maxima 64° at Cambridge and London, 62° at Leith and Shields, between 55° and 60° elsewhere. *Wind* westerly to north-westerly over these Islands, and southerly on the eastern shores of the North Sea. Fresh in force at Stornoway and Mullaghmore, and blowing a gale at Skudesnaes. Little change later. *Sea* moderate to slight, except off Stornoway and Skudesnaes. *Barometer* rising somewhat in nearly all parts of western Europe. Readings highest off our S.W. coasts, lowest to the northward of Scotland, but slight depressions shown near Toulon and Wisby. Barometer falling at Valentia later.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
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ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 20.] WEEK ENDING MONDAY, MAY 19, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	61	31	46	5 below.	3	3	1 less.
	2. ENGLAND, NORTH-EAST	61	37	46	6 below.	5	10	6 more.
	3. ENGLAND, EAST	64	33	48	7 below.	5	9	5 more.
	4. MIDLAND COUNTIES	66	37	49	6 below.	6	11	6 more.
	5. ENGLAND, SOUTH	63	36	50	5 below.	5	5	2 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	60	34	48	4 below.	4	8	3 more.
	7. ENGLAND, NORTH-WEST	61	37	49	5 below.	5	6	2 more.
	8. ENGLAND, SOUTH-WEST	67	41	50	5 below.	5	7	2 more.
	9. IRELAND, NORTH	58	36	48	4 below.	5	14	?
	10. IRELAND, SOUTH	62	38	50	3 below.	5	11	6 more.

General Remarks.

Weather cloudy and unsettled generally. A severe thunderstorm experienced in many parts of England on the 14th, with very heavy rain in some places. Slight thunderstorm in "Scotland, W.," on the 17th. Temperature again below the mean, but the deficit not so large as in previous weeks. Maxima frequently below 55°, but exceeding 60° on some occasions, and reaching 66° at Nottingham on the 17th, and 67° at Barnstaple on the 13th. No night frosts reported.

Rainfall more than the mean in all districts except "Scotland, E.," the excess ranging from two tenths of an inch in the W. and S. of England, to six tenths in "England, N.E.," the Midland Counties, and "Ireland, S." The heaviest amounts recorded during the thunderstorm of the 14th were 0·79 in. at Leicester, 0·83 in. at Kelstern, 1·15 in. at Nottingham, and 1·40 in. at Scarborough. Heavy rain fell over Ireland on the 16th.

Wind light westerly to southerly at first, but afterwards veering to N. and blowing strongly on the 15th, with a gale on the north-east coast of England. Southerly winds appearing in the west and north on the 16th, but falling light and becoming variable at the close of the week.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	Rainfall. No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	61	39	47·6	− 2·1	4	0·58	+0·21
	Aberdeen	56	36	45·7	− 5·1	1	0·05	−0·38
	Glenalmond	57	31	44·2	− 6·9	4	0·38	?
	Leith	61	35	46·4	− 4·7	3	0·13	−0·25
2. ENGLAND, N.E.	Shields	56	39	44·9	− 7·1	6	0·40	0·00
	Durham	61	38	46·0	− 5·9	5	0·67	+0·25
	Scarborough	56	40	45·2	− 7·5	6	2·11	+1·69
	York	60	39	47·7	− 5·0	4	0·43	+0·05
	Kelstern (Lincolnshire) ℳ	59	37	46·9	− 6·3	4	1·28	+0·95
3. ENGLAND, E.	Yarmouth	54	40	45·9	− 7·8	3	0·39	−0·02
	Cambridge	64	37	49·2	− 5·5	5	1·05	+0·67
	Audley End (Saffron Walden) ℳ	63	34	47·5	− 7·4	6	1·11	+0·73
	Rothamsted	60	33	47·5	− 7·3	6	0·95	+0·53
4. MIDLAND COUNTIES	Nottingham	66	37	48·9	− 4·9	6	2·23	+1·75
	Loughborough	63	39	49·1	− 5·3	6	0·95	+0·47
	Leicester	60	40	48·6	− 6·0	6	1·50	+1·07
	Shrewsbury ℳ	61	37	48·1	− 6·3	6	0·60	+0·17
	Hereford ℳ	62	38	49·6	− 5·2	6	0·93	+0·51
	Cirencester	64	42	49·6	− 5·4	6	0·81	+0·32
	Oxford	59	43	49·7	− 5·3	5	0·50	+0·10
5. ENGLAND, S.	London	62	36	50·2	− 4·5	4	0·41	+0·03
	Marlborough ℳ	61	40	50·4	− 4·5	5	0·61	+0·14
	Strathfield Turgiss ℳ	63	38	49·5	− 5·4	4	0·52	+0·18
	Dover	59	41	48·8	− 4·8	5	0·55	+0·10
	Hastings	59	41	49·1	− 5·0	5	0·65	+0·29
	Hurst Castle	60	44	50·2	− 4·4	4	0·51	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	58	35	47·6	− 2·9	2	0·94	?
	Glasgow	59	36	48·5	− 3·3	5	1·10	+0·53
	Ardrossan	60	39	49·4	− 2·3	5	1·06	+0·56
	Silloth	60	34	47·7	− 4·3	2	0·28	−0·12
	Douglas (Isle of Man)	56	38	47·6	− 4·8	4	0·63	+0·25
7. ENGLAND, N.W.	Stonyhurst	59	37	47·8	− 5·2	4	0·23	−0·32
	Manchester	61	40	48·4	− 5·6	5	0·41	0·00
	Liverpool Observatory (Bidston)	60	43	49·7	− 4·1	5	0·74	+0·41
	Holyhead	59	44	50·2	− 3·0	5	1·11	+0·75
8. ENGLAND, S.W.	Pembroke	54	43	48·0	− 7·0	5	0·99	+0·51
	Barnstaple	67	42	52·5	− 2·8	5	0·42	−0·05
	Falmouth	57	45	50·6	− 5·4	5	0·60	+0·02
	Plymouth	62	43	51·6	− 3·8	5	0·86	+0·40
	Prawle Point	61	41	48·9	− 6·3	5	0·42	?
9. IRELAND, N.	Mullaghmore	55	43	49·1	− 3·3	4	0·92	?
	Brookeborough	58	36	47·9	− 4·2	4	1·53	?
	Armagh	58	37	49·1	− 3·7	5	1·61	+1·27
	Donaghadee	57	36	47·5	− 5·0	5	1·58	?
10. IRELAND, S.	Dublin	60	38	50·1	− 2·9	6	0·69	+0·21
	Kingstown	59	38	49·4	− 3·4	6	0·75	+0·38
	Parsonstown	62	38	50·1	− 2·8	4	1·26	+0·73
	Roche's Point	60	42	51·8	− 2·1	4	1·51	+0·79
	Valentia	59	42	50·5	− 3·3	5	1·34	+0·71
SCOTLAND, N.	Sumburgh Head *							
	Stornoway	53	34	44·1	− 4·7	4	0·51	+0·18
	Wick	54	35	45·5	− 3·7	3	0·41	+0·14
——	Scilly (St. Mary's)	55	48	51·1	− 5·1	5	0·69	+0·43
	Jersey (Noirmont)	56	46	49·9	− 4·9	4	0·63	+0·21

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

* The returns from this station have not arrived during this week, telegraphic communication being interrupted.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending May 19, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, May 13.

Weather variable; fine at many western and northern stations, as well as over the greater part of France; cloudy or dull elsewhere, with rain in the S.W. and at Ardrossan. Fine day over England but rain occurring generally later.

Temperature changed irregularly, but risen over France and at a few of our central stations; varying at 8 A.M. from 56° in London to 43° at Yarmouth, and 45° at Prawle Point. Maxima during day higher than of late over central England.

Wind light or moderate in force and generally westerly to southerly in direction, veering to N.W. in the S.W. districts at night.

Sea moderate to calm.

Barometer risen a little over France, the eastern shores of the North Sea, and Scandinavia, fallen elsewhere. Band of high pressure lying over France and N. Germany. Well marked depression forming over these Islands in evening.

Wednesday, May 14.

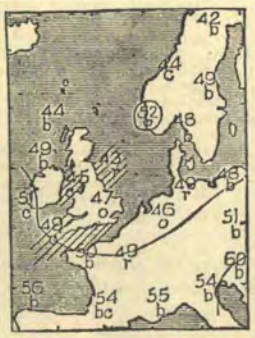
Weather very fine over Sweden, Denmark, N. Germany, and E. France, dull elsewhere, with rain in N.W. and W. Rain, except in the extreme W. later. Thunderstorms in several places, with heavy falls of rain; more than an inch at Scarborough and Nottingham.

Temperature risen several degrees on our S.E. coasts and over the Netherlands, fallen elsewhere, uniform over western Europe. Maxima low for season, particularly in the N.W.

Wind northerly in the N. and W., north-westerly in the S.W., westerly in the S., and southerly in the E. Fresh in force in the W. and N.W., moderate to light elsewhere. Light variable airs over the N. of England. Northerly breeze extending all over England during day, increasing and becoming strong in N.E.

Sea rough Stornoway, Kingstown, and Scilly.

Barometer rising in extreme W., falling elsewhere, briskly over England. Depression noticed on 13th now over England, becoming deeper and moving south-eastwards.



Thursday, May 15.

Weather fine over the W. of France, Ireland, the W. of Scotland, and Sweden, but cloudy or dull elsewhere, with rain over central England. Rain in the E., S.E., and central districts all day—heavy in some places.

Temperature little changed in the W., lower elsewhere; very uniform over western Europe. Maxima again low, particularly in the N.E. of England, where they did not exceed 45°.

Wind northerly on most of our coasts, but drawing into N.W. in the S.E., into S.W. in the Netherlands, and into S.E. in Denmark. Strong over these Islands all day, and blowing a strong gale at Shields, and fresh gale on Lincolnshire coast.

Sea rough in the N.E., N.W., and S.W.

Barometer falling on eastern shores of North Sea, rising elsewhere. Depression now off our S.E. coasts, and highest readings to the westward of Ireland. Fresh decrease appearing in N.W. at night.

Friday, May 16.

Weather cloudy or dull in Ireland, the E. of England, and the greater part of France, moderately fine elsewhere; rain at Paris and Rochefort. Rain falling in W. and S.W. later, but weather improving generally elsewhere.

Temperature slightly higher Ireland, slightly lower France, little changed in any other places. Still very uniform. Maxima between 50° and 60°, except in N.E., where temperature continued low.

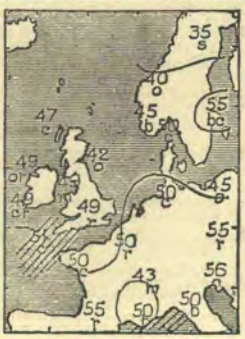
Wind southerly on our western and northern coasts, as well as in Paris, northerly in most other places. Moderate to fresh in force at 8 A.M., but falling lighter in E. and N. during day.

Sea moderate to smooth, except near Stornoway and Valentia.

Barometer rising on our S.E. coasts, over Holland and N. Germany, falling elsewhere. Readings highest in S.W., depression still shown in S.E., but fresh disturbance appearing in N.W.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, May 17. *Weather* still fine in Sweden, Denmark, and fair at a few of our central stations; cloudy or dull generally, with rain in the N.W., W., and S.W. Rain extending eastward, and reaching London by night. *Temperature* rather higher over our Islands, and lower on the continent than on the 16th, uniform over western Europe and over these Islands, the 8 A.M. readings varying from 55° at Liverpool to 45° at Yarmouth. *Wind* southerly on most of our coasts, but fresh northerly again in W. Ireland, while north-westerly breezes are reported over Norway, strong northerly in Sweden, and variable breezes in France. Wind south-easterly in N. later. *Sea* moderate to slight, except at Mullaghmore and Scilly. *Barometer* rising slightly in N. Germany, falling elsewhere, —rather briskly over Ireland, where an elongated depression appeared moving south-eastwards to Bristol Channel during day.
		**Sunday, May 18.** *Weather* fine over the Baltic and at a few of the Dutch and French stations, cloudy and unsettled generally, with rain in many parts of these Islands; snow in the N. of Sweden. *Temperature* fallen except over the Netherlands; varying over these Islands from 51° at Scilly to 41° at Aberdeen. Thermometer low all day especially in N.E. *Wind* westerly over the Channel, southerly to south-easterly over the S.E. of England, easterly in the N., and northerly in the W.; strong in force in the W. and S.W., light elsewhere. Shifting to E. in the S. later on. *Sea* moderate to slight except at Scilly and Jersey. *Barometer* recovering slightly in S. Ireland, falling elsewhere; briskly over England and France. Depression shown over south-western England, but moving south-eastwards over France during day, and barometer rising slightly in its rear.
		Monday, May 19. *Weather* still moderately clear in N. Germany and the Netherlands, cloudy or dull in nearly all other places. Some rain in Ireland and the W. and N.E. of England during day, but weather improving about London. *Temperature* little changed at 8 A.M., risen slightly in W., fallen in N. and E. Readings varying from 51° in the S.W. to 41° in the N.E. Maximum day temperature slightly exceeding 60° in the S. and S.E. of England. *Wind* variable, southerly on our N.W. coasts, north-westerly in the S.W. and over the W. of France, and northerly elsewhere. Light to moderate except in the S.W.; southerly breeze extending eastward later. *Sea* rough at Scilly and Rochefort, nearly smooth on the other coasts. *Barometer* falling on the eastern shores of the North Sea and on our extreme western coasts, rising elsewhere, briskly in Sweden. Pressure high over Sweden and Spain, low off the Hebrides and also over the Netherlands and E. of France.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

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Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire)
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	66	35	49	3 below.	6	7	3 more.
	2. ENGLAND, NORTH-EAST	66	37	51	3 below.	5	9	5 more.
	3. ENGLAND, EAST	68	37	52	4 below.	6	12	8 more.
	4. MIDLAND COUNTIES	69	37	53	3 below.	5	5	0 (average).
	5. ENGLAND, SOUTH	69	38	53	3 below.	4	5	2 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	63	40	50	3 below.	6	9	4 more.
	7. ENGLAND, NORTH-WEST	61	42	51	4 below.	6	8	4 more.
	8. ENGLAND, SOUTH-WEST	66	44	52	4 below.	5	4	1 less.
	9. IRELAND, NORTH	62	37	50	4 below.	6	9	?
	10. IRELAND, SOUTH	63	37	52	3 below.	6	7	1 more.

General Remarks.

Weather very changeable and unsettled generally, but on the whole finer in the south-east of England than elsewhere. Showers very prevalent, with hail in the west of Scotland on the 25th and in Ireland on the 26th. Temperature decidedly higher than in the previous week, but still below the mean generally, the deficit amounting to three or four degrees in all districts. In "England, E. and S.," however, the temperature of the first three days was greatly in excess of that of the remainder of the week, maxima of 67° or 68° in the shade being recorded daily in London. Highest maxima occurred generally during early part of week, when readings varying from 65° to 69° were reached over England and "Scotland, E." Nights usually warm, but that of 23rd rather cold over England, when sheltered thermometer fell to 37° in many places.

Rainfall less than the mean in "England, S.W.," and showing no deficit over the Midland Counties; more than the mean in all other districts, the excess varying from one tenth of an inch in "Ireland, S.," to eight tenths in "England, E."

Wind very variable. At beginning of week northerly breezes prevailed in Ireland and southerly elsewhere, but on 23rd winds from the former direction became general. On the 24th, however, they had backed to W., and, after veering to N.W., on the following day, returned to the south-westward or southward by the close of the week. Fresh winds were general in the west, but moderate in the east.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	61	? 37	49·4	− 1·5	6	0·31	−0·07
	Aberdeen	60	41	48·8	− 3·3	7	1·13	+0·70
	Glenalmond	59	35	46·6	− 5·7	6	0·76	?
	Leith	66	40	49·9	− 2·5	6	0·54	+0·16
2. ENGLAND, N.E.	Shields	59	41	50·4	− 3·0	5	0·62	+0·22
	Durham	66	39	53·5	+ 0·6	6	1·08	+0·66
	Scarborough	59	41	50·0	− 4·0	6	0·79	+0·34
	York	60	40	51·5	− 2·6	6	0·65	+0·25
	Kelstern (Lincolnshire) ℔	66	37	50·8	− 3·6	4	1·25	+0·89
3. ENGLAND, E.	Yarmouth	57	44	49·7	− 5·4	4	1·45	+1·02
	Cambridge	68	37	52·6	− 3·4	6	1·12	+0·74
	Audley End (Saffron Walden) ℔	66	37	52·0	− 4·2	6	1·01	+0·62
	Rothamsted	67	39	52·3	− 3·8	6	1·06	+0·61
4. MIDLAND COUNTIES	Nottingham	69	37	53·9	− 1·2	6	0·56	+0·06
	Loughborough	67	38	53·0	− 2·7	5	0·54	+0·03
	Leicester	67	39	52·9	− 2·9	5	0·75	+0·27
	Shrewsbury ℔	62	42	52·4	− 3·3	6	0·38	−0·04
	Hereford ℔	66	39	52·6	− 3·4	5	0·26	−0·18
	Cirencester	66	40	52·3	− 3·9	3	0·27	−0·23
	Oxford	64	40	52·6	− 3·7	4	0·60	+0·20
5. ENGLAND, S.	London	68	40	54·0	− 1·9	5	0·73	+0·31
	Marlborough ℔	66	40	53·7	− 2·5	4	0·35	−0·13
	Strathfield Turgiss ℔	69	38	53·4	− 2·6	3	0·57	+0·23
	Dover	61	44	51·7	− 3·1	3	0·70	+0·24
	Hastings	65	41	51·3	− 3·9	5	0·43	+0·09
	Hurst Castle	64	45	53·0	− 2·5	3	0·20	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	58	40	49·4	− 2·4	5	1·06	?
	Glasgow	61	40	50·7	− 2·1	5	0·74	+0·16
	Ardrossan	58	44	50·8	− 2·0	7	0·96	+0·45
	Silloth	63	43	50·7	− 2·6	7	0·85	+0·43
	Douglas (Isle of Man)	56	41	48·5	− 5·1	7	0·86	+0·48
7. ENGLAND, N.W.	Stonyhurst	61	42	50·7	− 3·5	6	1·16	+0·59
	Manchester	61	42	51·8	− 3·5	6	0·73	+0·33
	Liverpool Observatory (Bidston)	61	45	51·6	− 3·6	6	0·56	+0·19
	Holyhead	60	45	50·8	− 3·3	6	0·89	+0·53
8. ENGLAND, S.W.	Pembroke	52	45	49·2	− 6·8	5	0·38	−0·08
	Barnstaple	66	45	55·5	− 0·8	4	0·86	+0·40
	Falmouth	60	47	52·8	− 4·6	5	0·23	−0·35
	Plymouth	61	46	53·1	− 3·6	5	0·19	−0·25
	Prawle Point	59	44	51·1	− 5·3	4	0·27	?
9. IRELAND, N.	Mullaghmore	60	43	50·0	− 3·5	6	1·29	?
	Brookeborough	62	37	48·9	− 4·7	5	0·91	?
	Armagh	60	40	49·5	− 4·5	7	0·81	+0·48
	Donaghadee	58	41	49·4	− 4·3	6	0·73	?
10. IRELAND, S.	Dublin	62	40	51·6	− 2·4	7	0·89	+0·41
	Kingstown	61	41	50·9	− 3·2	7	0·93	+0·56
	Parsonstown	62	37	51·0	− 3·2	5	0·49	−0·04
	Roche's Point	63	45	53·8	− 1·4	4	0·41	−0·29
	Valentia	59	45	52·1	− 3·1	5	0·61	−0·01
SCOTLAND, N.	Sumburgh Head *							
	Stornoway	55	38	46·9	− 3·0	4	1·25	+0·66
	Wick	57	35	47·3	− 3·3	6	0·61	+0·35
——	Scilly (St. Mary's)	59	49	52·8	− 4·4	5	0·14	−0·15
	Jersey (Noirmont)	63	46	52·6	− 3·5	3	0·66	+0·25

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "℔" are in connection with the Meteorological Society.

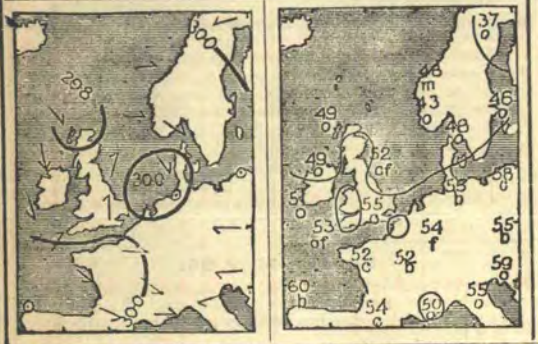
* The returns from this station have not arrived during this week, telegraphic communication being interrupted.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending May 26, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, May 20.

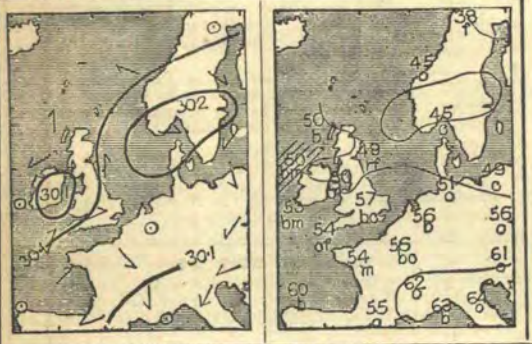
Weather fine at some eastern and southern stations, as well as over the N. of France and the Netherlands; dull or cloudy elsewhere, with rain and fog in places. Some rain general.

Temperature risen considerably these Islands; slightly on the Continent. Uniform over western Europe. Maxima generally between 55° and 60°, but thermometer reaching 68° in London and 66° at Cambridge.

Wind northerly in Hebrides and W. of Ireland, southerly on most of our other coasts, but north-westerly over France. Moderate or light except in N. Ireland. Northerly breeze extending eastward a little later.

Sea nearly smooth.

Barometer rising generally. Readings high over Spain and Lapland; low off N.W. coast of Scotland. Pressure increasing all day.



Wednesday, May 21.

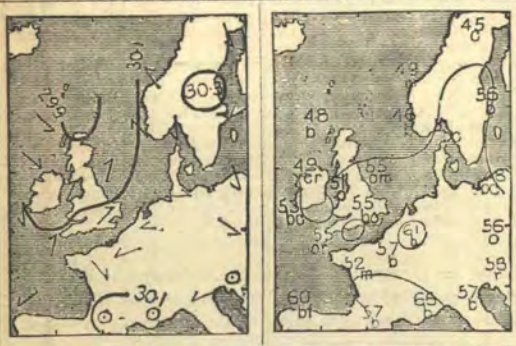
Weather variable. Fine at many northern and western stations, as well as in the S.E. and over the Netherlands; cloudy or dull elsewhere. Rain in N. England. Rain in W. and N. later.

Temperature lower than on 20th in W. and N.; higher in the S. and over France. Still comparatively uniform. Maxima again between 50° and 60° generally, but reaching 68° at Cambridge.

Wind varying a good deal in direction, and very light on our own and the French coasts. Fresh southerly breeze appearing in W. later.

Sea nearly smooth except off Mullaghmore.

Barometer rising very generally, and readings uniform and moderately high. Rather brisk fall taking place in W. in afternoon.



Thursday, May 22.

Weather fine in S.E. and on continent generally, cloudy or dull in our western, central, and northern districts, with rain at several stations. Some rain all over the British Isles later.

Temperature changed irregularly, still uniform over western Europe, ranging from 66° at Toulon to 48° in Scotland. Maxima 67° in London, ranging between 52° and 62° elsewhere.

Wind northerly in Ireland, north-westerly in the Hebrides, southerly on most of our other coasts, variable elsewhere. Light in most places. Wind more westerly in evening.

Sea moderate to calm.

Barometer changing little and irregularly generally, but shallow depression crossing Scotland, causing slight fall over that country. Recovery taking place in W. during day.

Friday, May 23.

Weather fair to fine in the W. and N., cloudy, unsettled, and rainy in the E. and S.E. Unsettled all day and rain falling in most parts of our Islands.

Temperature higher than on 22nd over Scotland and Ireland, and on eastern shores of North Sea, lower elsewhere, as much as 10° in the N.E. of England. Maximum temperatures low, except in the N.E.

Wind westerly in the N.W., northerly on our other coasts and over France, south-easterly in N. Germany, blowing freshly in the W. Wind backing to S.W. in the N. later, and reaching a fresh gale at Stornoway.

Sea rough near Scilly and off the Yorkshire coast.

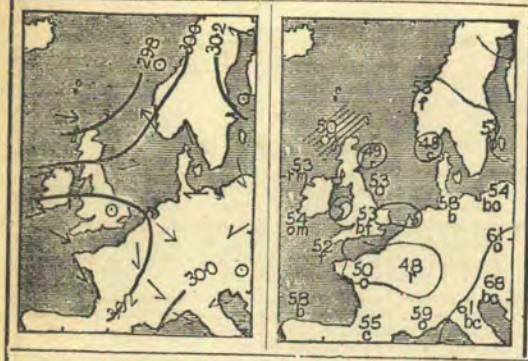
Barometer falling on the eastern shores of the North Sea and extreme S.E. of England, rising elsewhere—briskly in S.W. Brisk fall occurring in N.W. later and large depression approaching Scotland.

(*Continued over.*)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, May 24.

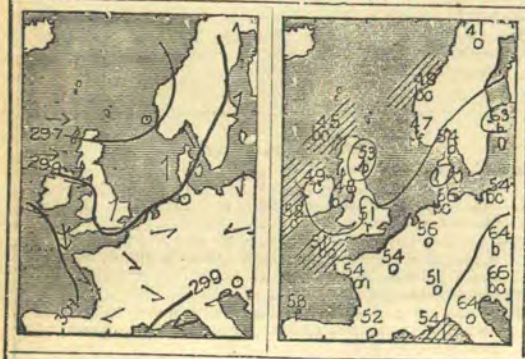
Weather fine over the S.E. of England and in Denmark, cloudy or dull generally, with rain in the W. of Ireland and at Aberdeen. Weather fine all day in the S., cloudy and unsettled in the N.

Temperature fallen several degrees over France, risen over these Islands, very uniform over western Europe. Maxima in south-eastern England exceeding 65°.

Wind generally westerly on our coasts but drawing into S.W. and S. over the North Sea, and into N.W. or N. over France. Moderate to fresh in force. Little change later.

Sea rough near the Hebrides, moderate to slight elsewhere.

Barometer has fallen briskly in the N. and slightly on the western coasts of our own Islands and France, but has risen in the S.E. A large area of high pressure lies over the Bay of Biscay with a large depression advancing over Scotland.



Sunday, May 25.

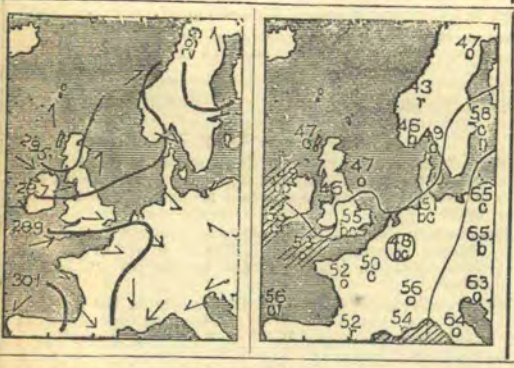
Weather wet and dull over central and south-eastern England, cloudy over France, but fine elsewhere. Rain falling generally during day, but weather improving considerably in S.E.

Temperature rather lower than on 24th over these Islands, higher on the continent. Readings uniform over western Europe. Maxima slightly exceeding 60° in central and southern England.

Wind westerly to north-westerly over these Islands and France, southerly over the countries to the eastward of the North Sea. It is fresh in the W. and blows a gale at Scilly. Backing to S.W. in the N. later.

Sea rough in the N.W., W. and S.W.

Barometer falling everywhere. Readings highest off the N.W. coast of Spain, lowest to the northward of Scotland. Small depression shown over the North Sea and S.E. of England, moving southward during day.



Monday, May 26.

Weather fine over the S.E. of England and the Netherlands, cloudy or dull generally, with rain on our N.W. coasts and in S. France. Sky cloudy generally later, with rain at nearly all stations.

Temperature changed irregularly, still uniform over western Europe, varying from 56° at Lyons and 59° at Wisby to 45° at Nairn and 43° at Christiansund. Maxima ranging between 50° and 60°.

Wind westerly over Ireland, south-westerly to southerly on our other coasts, variable in direction on the continent. Fresh in force at some western stations. Wind veering somewhat in most places during day, but backing to eastward in Scotland.

Sea rough in the W. and S.W., moderate to smooth elsewhere.

Barometer rising over the N. of Scandinavia, falling in nearly all other places. Readings high over the N.W. of Spain and the Gulf of Bothnia, lowest to the north-westward of Scotland. Depression passing across Scotland during day and a second forming in the S.E.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⇒ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

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For Her Majesty's Stationery Office.
[48.—150.—5/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 22.] WEEK ENDING MONDAY, JUNE 2, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Kelstern (Lincolnshire)
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston) Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	DISTRICTS.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	60	36	48	5 below.	6	11	8 more.
	2. ENGLAND, NORTH-EAST	65	35	49	6 below.	4	9	4 more.
	3. ENGLAND, EAST	66	39	52	5 below.	6	16	11 more.
	4. MIDLAND COUNTIES	68	34	51	6 below.	6	12	8 more.
	5. ENGLAND, SOUTH	62	40	52	5 below.	6	25	24 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	65	36	50	4 below.	4	5	1 more.
	7. ENGLAND, NORTH-WEST	61	36	50	6 below.	3	5	1 more.
	8. ENGLAND, SOUTH-WEST	67	43	51	6 below.	6	13	7 more.
	9. IRELAND, NORTH	63	34	50	5 below.	3	3	?
	10. IRELAND, SOUTH	67	34	50	6 below.	4	5	0 (average).

General Remarks.

Weather showery and unsettled. Severe thunderstorm, with very heavy rain in "England, S.," and Midland Counties on the night of the 28th May, and much rain in "England, S.," on the 2nd June. *Temperature* below the mean in all districts, the deficit varying from four degrees in "Scotland, W.," to seven degrees in "England, S.W." No very striking maxima or minima observed, the highest reading of all (68°) being recorded at Nottingham on the 31st May. No night frosts were reported.

Rainfall about the mean in "Ireland, S.," but more in all other districts, especially in "England, S.," where the total fall for the week was as much as two inches and a half. This unusually heavy amount was due principally to the thunderstorm of the 28th May, on which occasion 1·64 in. fell in London, 1·33 in. at Marlborough, 1·43 in. at Strathfield Turgiss, 0·92 in. at Dover, and 1·24 in. at Hastings. At the last-mentioned station 1·80 in. fell on Monday the 2nd June, and the total rainfall for the week amounted to as much as 3·55 ins., or about twice the average for the entire month of May.

Wind generally northerly or north-easterly during the early part of the week, but south-westerly to westerly subsequently. The northerly winds were fresh to strong in force on the 27th and 28th May, and the south-westerly winds were strong in the south-east on the 1st and 2nd June.

The data from which the summary on the preceding page has been calculated are as follows:

Districts.	Names of Stations.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	Rainfall. No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	59	40	48·4	− 3·9	6	1·48	+1·10
	Aberdeen	56	40	48·3	− 5·1	6	1·27	+0·87
	Glenalmond	58	36	47·2	− 6·4	6	0·98	?
	Leith	60	39	48·7	− 5·1	4	0·74	+0·34
2. ENGLAND, N.E.	Shields	60	39	47·8	− 7·2	4	0·57	+0·17
	Durham	65	35	49·0	− 5·5	4	0·46	+0·04
	Scarborough	60	42	49·8	− 5·6	5	0·50	+0·05
	York	62	38	50·6	− 5·0	4	0·99	+0·57
	Kelstern (Lincolnshire) ℞	61	40	48·7	− 7·5	5	1·71	+1·34
3. ENGLAND, E.	Yarmouth	62	45	51·9	− 4·6	5	1·04	+0·59
	Cambridge	66	41	52·9	− 4·6	6	1·66	+1·28
	Audley End (Saffron Walden) ℞	63	39	52·0	− 5·6	4	1·06	+0·66
	Rothamsted	59	41	51·0	− 6·9	7	2·44	+1·98
4. MIDLAND COUNTIES	Nottingham	68	39	52·0	− 4·7	6	0·99	+0·49
	Loughborough	65	41	51·1	− 6·1	7	0·81	+0·28
	Leicester	63	40	51·0	− 6·4	7	1·22	+0·71
	Shrewsbury ℞	66	35	49·9	− 7·4	6	0·74	+0·33
	Hereford ℞	65	34	51·2	− 6·0	6	1·48	+1·05
	Circncester	63	40	50·5	− 7·1	6	1·80	+1·30
	Oxford	60	39	50·5	− 7·2	6	1·51	+1·10
5. ENGLAND, S.	London	62	45	52·7	− 4·9	5	2·64	+2·16
	Marlborough ℞	62	43	51·5	− 6·2	6	2·70	+2·22
	Strathfield Turgiss ℞	62	40	51·8	− 5·7	6	3·22	+2·86
	Dover	58	48	53·0	− 3·2	5	2·07	+1·61
	Hastings	61	45	52·4	− 3·9	6	3·55	+3·23
	Hurst Castle	57	46	52·3	− 4·5	6	0·98	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	60	38	50·1	− 3·1	1	0·25	?
	Glasgow	62	40	49·6	− 5·4	6	0·94	+0·34
	Ardrossan	64	42	50·2	− 3·9	6	0·51	0·00
	Silloth	65	36	50·4	− 4·3	6	0·89	+0·47
	Douglas (Isle of Man)	61	36	49·5	− 5·3	2	0·12	−0·26
7. ENGLAND, N.W.	Stonyhurst	60	36	49·3	− 6·5	4	0·46	−0·14
	Manchester	61	36	49·3	− 7·3	4	0·65	+0·21
	Liverpool Observatory (Bidston)	61	43	51·0	− 5·6	3	0·65	+0·25
	Holyhead	61	44	50·8	− 4·7	2	0·24	−0·13
8. ENGLAND, S.W.	Pembroke	56	43	49·5	− 7·6	5	0·47	+0·07
	Barnstaple	67	43	54·9	− 2·6	7	1·44	+0·99
	Falmouth	58	45	51·0	− 7·3	6	1·41	+0·81
	Plymouth	60	45	52·4	− 5·4	6	1·28	+0·86
	Prawle Point	55	43	49·3	− 8·5	6	1·84	?
9. IRELAND, N.	Mullaghmore	57	44	50·4	− 4·4	1	0·01	?
	Brookeborough	63	34	49·4	− 5·7	2	0·19	?
	Armagh	61	40	50·0	− 5·4	4	0·44	+0·11
	Donaghadee	60	40	50·8	− 4·2	3	0·44	?
10. IRELAND, S.	Dublin	63	40	50·1	− 5·4	5	0·33	−0·16
	Kingstown	63	41	49·8	− 5·8	3	0·26	−0·10
	Parsonstown	63	34	49·5	− 6·1	3	0·58	+0·05
	Roche's Point	?67	42	52·5	− 4·0	3	0·76	+0·09
	Valentia	59	?38	49·9	− 6·4	4	0·60	−0·03
SCOTLAND, N.	Sumburgh Head*							
	Stornoway	54	39	46·4	− 4·6	3	0·23	−0·30
	Wick	56	36	47·0	− 3·0	5	0·70	+0·44
——	Scilly (St. Mary's)	57	47	51·6	− 6·4	7	1·07	+0·72
	Jersey (Noirmont)	58	45	51·8	− 5·6	5	1·45	+1·05

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "℞" are in connection with the Meteorological Society.
* The returns from this station have not arrived during this week, telegraphic communication being interrupted.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending June 2, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, May 27.

Weather overcast and wet over the Channel and S. of England, very cloudy over France, fine or moderately so elsewhere. Unsettled and rainy all day in the S. Severe thunderstorm with heavy rain on eastern shores of North Sea.

Temperature risen over Scotland and the countries to the eastward of the North Sea, fallen in the S. and S.W. Maxima generally between 59° and 60°, but reaching 62° at York.

Wind northerly at all our more northern and western stations, westerly over the Bay of Biscay, southerly in the S.E. of England, and north-easterly over Scandinavia and Denmark. Fresh to a gale from N. on our western coasts in the evening, and backing to E. in the S.E. of England.

Sea rough at Valentia and Scilly, moderate to slight elsewhere.

Barometer falling over France, N. Germany, and the S. and S.E. of England, rising elsewhere. Readings highest over the Gulf of Bothnia, with well marked depression lying over N.W. France. Disturbance stationary, but getting deeper during day.

Wednesday, May 28.

Weather generally dull and unsettled, but fine in the S.E. of England and over the Netherlands. Rainy in the S.E. of France. Thunderstorm with exceedingly heavy rain over south-eastern and central districts at night, producing heavy floods next day.

Temperature risen fast on north-eastern shores of North Sea, fallen on our E. coast, changed little elsewhere. Readings high over the Baltic, but uniform over western Europe. Maxima below 60°, except in some parts of England.

Wind north-easterly over nearly the whole of these Islands, but south-westerly over the Bay of Biscay and south-easterly in the N. of France. Fresh to strong in force. Little change during day.

Sea rough on the Irish coasts and off the S.W. of England, moderate to slight elsewhere.

Barometer rising in the N. and N.W., falling elsewhere. Readings remaining highest over the Gulf of Bothnia. Depression still shown in the S.W., and growing deeper; a second one shown near Denmark. Both travelling westward.

Thursday, May 29.

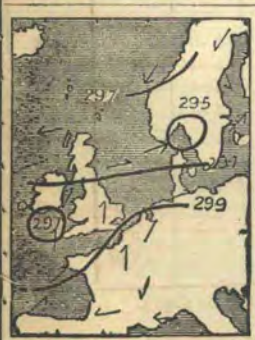
Weather fine in Sweden and locally fair in a few other places, but cloudy to dull generally with rain in the S.W. Rain occurring except in the S.E. during the day, fall heavy in Scotland E.

Temperature risen over Scotland and Scandinavia, changed irregularly elsewhere; the 8 A.M. readings as high as 71° at Christiansund, 65° and 66° in the S. of Sweden, and exceeding 60° over all the eastern shores of the North Sea, but varying from 45° to 55° elsewhere.

Wind south-westerly and southerly over France and the S.E. of England, north-easterly on most of our coasts, and easterly over Norway and Sweden; fresh in the W., but moderating later on.

Sea rough off Scilly and Mullaghmore, moderate to slight elsewhere.

Barometer high over Sweden and Mediterranean, lowest in a trough over the S. of England and at the mouth of the Channel, rising somewhat over France and our S. coast, falling in nearly all other places.



Friday, May 30.

Weather fine in the S.E. of England, the Netherlands, and some parts of France; cloudy generally elsewhere, with rain and fog in the N. Weather fair in the N.E. all day.

Temperature slightly lower over Scotland, and considerably lower over Scandinavia than on the 29th; rather higher on our western coasts, and little changed elsewhere. Thermometer exceeding 60° at only a few inland stations during day.

Wind southerly to south-westerly over France, the S.E. of England, the North Sea, and S. of Sweden; north-easterly over Norway and Scotland. Moderate generally, but blowing strongly in the Skager Rack, and reaching a gale there later.

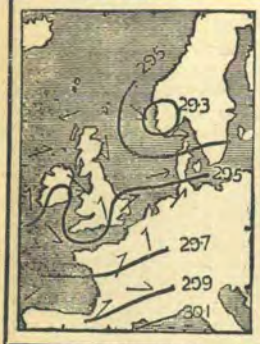
Sea rather rough at Hurst Castle, Lorient, and Toulon; high off the Scaw.

Barometer rising in the S., falling in the N.—quickly over Scandinavia. Readings highest over France. Depressions shown in the S.W. and over the Skager Rack. Little change later.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	



Saturday, May 31.

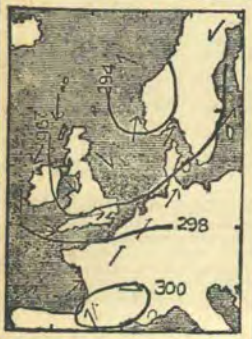
Weather at 8 A.M. fine in the extreme S.E. of England and over the Netherlands; cloudy in nearly all other places; rainy at Ardrossan and Shields. Showers falling generally during day.

Temperature rather higher in W. and lower in N. than on 30th; little changed elsewhere. Ranging from 64° at Toulon to 57° at Nottingham and 44° at Christiansund. Maxima low everywhere.

Wind westerly to south-westerly over France, the S.E. of England, and the North Sea; northerly in Norway and Scotland. Strong to a gale in the Skager Rack, moderate to light elsewhere.

Sea rough in the Minch, the Bay of Biscay, and Skager Rack.

Barometer rising slightly in France, falling elsewhere. Large area of high pressure over Mediterranean, with depressions over the S. of England and S. of Norway, moving very irregularly.



Sunday, June 1.

Weather dull or very cloudy in nearly all places, with hail showers in the N.E. of Scotland and rain over the S. of England. Rain falling, except over Ireland, during the day—almost continuously in the S.

Temperature several degrees lower over these Islands and a little higher on the Continent than on 31st. Readings comparatively uniform over western Europe. Maxima low these Islands, reaching only 49° in N. Scotland, and ranging between 50° and 60° elsewhere.

Wind north-easterly and northerly over Scotland and Ireland, westerly over England and the Channel, and south-westerly and southerly over the southern parts of the North Sea. Fresh except over N. England, and blowing strongly in Channel later.

Sea rough at the southern ports and at Stornoway.

Barometer rising a little over Scandinavia but falling generally. Readings highest over Spain and lowest off the W. coast of Norway. Small depressions passing across these Islands from the westward during day.

Monday, June 2.

Weather wet, dull, and very unsettled over the S. of England, the N. of France, N. Germany, and the eastern shores of the North Sea, fair or fine elsewhere, but misty over the Channel. Heavy continuous rain in S.E.

Temperature fallen over our Islands, risen somewhat on the Continent; varying over these Islands from 53° at Scilly to 45° at Nairn. Maxima again low, ranging between 50° and 60°.

Wind westerly over the greater part of these Islands and the Channel, southerly on the eastern shores of the North Sea, and easterly in N. Scotland, blowing strongly in S.E. and at Jersey. Strong winds from S. at Scilly, and from N. in Ireland later.

Sea rough in the S.E. as well as at Lorient and Stornoway.

Barometer highest over the S.E. of France, lowest over the North Sea; rising slightly generally, but briskly in the S.; the latter change commencing at Coruña first and spreading to our S.W. coasts later.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[48.—150.—6/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 23.] WEEK ENDING MONDAY, JUNE 9, 1879. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston) Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	65	36	49	5 below.	5	11	5 more.
	2. ENGLAND, NORTH-EAST	70	37	52	5 below.	4	9	5 more.
	3. ENGLAND, EAST	69	38	55	4 below.	6	9	5 more.
	4. MIDLAND COUNTIES	72	35	55	4 below.	6	15	10 more.
	5. ENGLAND, SOUTH	71	39	56	3 below.	5	7	3 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	66	39	53	3 below.	4	14	12 more.
	7. ENGLAND, NORTH-WEST	66	38	53	5 below.	5	14	9 more.
	8. ENGLAND, SOUTH-WEST	70	41	54	4 below.	5	12	8 more.
	9. IRELAND, NORTH	61	40	52	4 below.	5	12	?
	10. IRELAND, SOUTH	66	38	54	3 below.	6	13	8 more.

General Remarks.

Weather rainy and unsettled generally. Thunderstorms, with heavy rain, reported over Great Britain on several occasions, and very heavy fall of rain in almost all places on Saturday the 7th. Temperature again below the mean, the deficit ranging from three to five degrees. Thermometer seldom above 65° over Scotland, Ireland, and the western parts of England, but slightly exceeding 70° in the Midland Counties and "England, S.," on the 5th. Minima rather below 40° in most places on the 4th and 5th, but much higher towards the close of the week.

Rainfall more than the mean in all districts, the excess varying from three tenths of an inch in "England, S.," to twelve tenths in "Scotland, W." Principal of the heavy falls occurred on Saturday the 7th, but in some places a second was reported on the 9th.

Wind has varied considerably in direction. At the commencement of the week the north-westerly or northerly current predominated, but by the 6th and 7th easterly or south-easterly breezes had become general, while at the close of the period a cyclonic circulation was shown round a depression which lay over our western coasts. Wind has been generally light or moderate in force.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	65	42	50·9	− 2·8	4	0·83	+0·45
	Aberdeen	54	40	48·2	− 6·4	4	0·84	+0·43
	Glenalmond	60	36	48·2	− 6·8	6	1·47	?
	Leith	61	42	50·1	− 5·1	4	1·14	+0·73
2. ENGLAND, N.E.	Shields	60	41	50·3	− 6·0	3	0·93	+0·53
	Durham	70	40	52·3	− 3·8	4	1·01	+0·59
	Scarborough	64	43	51·2	− 5·6	5	1·01	+0·55
	York	67	38	52·5	− 4·5	4	0·82	+0·35
	Spurn Head*	64	45	52·2	− 5·0	5	0·36	?
	Kelstern (Lincolnshire) ℳ	68	37	52·2	− 5·4	4	0·99	+0·59
3. ENGLAND, E.	Yarmouth	65	42	53·5	− 4·3	5	0·54	+0·07
	Cambridge	69	40	55·9	− 2·8	6	1·55	+1·16
	Audley End (Saffron Walden) ℳ	67	38	55·4	− 3·7	5	1·04	+0·63
	Rothamsted	65	39	54·7	− 4·5	6	0·57	+0·10
4. MIDLAND COUNTIES	Nottingham	72	37	55·1	− 2·9	6	1·82	+1·32
	Loughborough	71	35	54·8	− 3·6	6	1·71	+1·17
	Leicester	67	40	54·5	− 4·1	6	1·15	+0·61
	Shrewsbury ℳ	66	40	53·8	− 4·7	6	1·53	+1·13
	Hereford ℳ	67	37	54·2	− 4·1	6	1·75	+1·32
	Cirencester	69	36	54·7	− 4·3	6	1·35	+0·84
	Oxford	65	40	55·1	− 4·1	7	0·88	+0·42
5. ENGLAND, S.	London	71	41	57·5	− 1·3	4	0·90	+0·42
	Marlborough ℳ	67	39	55·6	− 3·6	6	0·82	+0·35
	Strathfield Turgiss ℳ	69	39	55·8	− 3·0	5	0·50	+0·12
	Dover	63	46	55·0	− 2·4	4	0·51	+0·06
	Hastings	64	42	54·6	− 3·0	5	0·88	+0·57
	Hurst Castle	61	47	54·2	− 3·8	4	0·51	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	65	39	52·9	− 1·4	3	0·43	?
	Glasgow	63	41	51·9	− 3·3	5	1·50	+0·86
	Ardrossan	63	41	52·4	− 2·7	5	1·99	+1·48
	Silloth	66	40	54·3	− 1·5	4	2·05	+1·62
	Douglas (Isle of Man)	61	41	51·7	− 4·1	1	1·02	+0·64
7. ENGLAND, N.W.	Stonyhurst	65	38	52·1	− 4·8	6	1·49	+0·86
	Manchester	61	41	49·2	− 8·5	5	1·64	+1·13
	Liverpool Observatory (Bidston)	66	44	54·6	− 3·2	4	1·23	+0·81
	Holyhead	66	44	54·7	− 2·2	5	1·18	+0·81
8. ENGLAND, S.W.	Pembroke	60	47	52·9	− 5·2	4	1·08	+0·68
	Barnstaple	70	41	58·0	− 0·4	5	1·58	+1·13
	Falmouth	60	45	54·4	− 4·8	6	1·27	+0·67
	Plymouth	63	41	54·9	− 4·0	4	1·19	+0·79
	Prawle Point	60	45	52·0	− 7·0	5	0·62	?
9. IRELAND, N.	Mullaghmore	60	45	53·0	− 3·3	5	0·64	?
	Brookeborough	61	40	52·5	− 3·9	5	1·31	?
	Armagh	60	40	52·4	− 3·9	6	1·75	+1·42
	Donaghadee	60	44	50·8	− 5·2	2	0·99	?
10. IRELAND, S.	Dublin	62	42	53·7	− 2·9	6	1·23	+0·70
	Kingstown	64	42	53·3	− 3·5	6	1·23	+0·86
	Parsonstown	64	38	52·8	− 3·9	5	0·97	+0·45
	Roche's Point	66	44	55·4	− 2·2	6	1·84	+1·21
	Valentia	62	42	53·3	− 3·9	5	1·28	+0·65
SCOTLAND, N.	Sumburgh Head	53	37	46·9	− 3·3	3	0·08	−0·21
	Stornoway	57	42	48·6	− 3·4	4	0·25	−0·43
	Wick	55	39	47·4	− 5·5	5	0·44	+0·16
——	Scilly (St. Mary's)	59	48	54·3	− 4·7	7	1·21	+0·79
	Jersey (Noirmont)	62	47	55·3	− 3·3	4	0·55	+0·18

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.
* Spurn Head has now been added to the list of stations in "England, N.E."

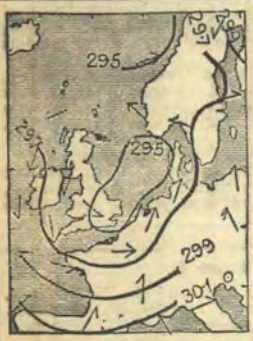
II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending June 9, 1879.

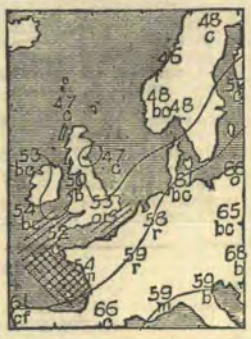
Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.





Tuesday, June 3.

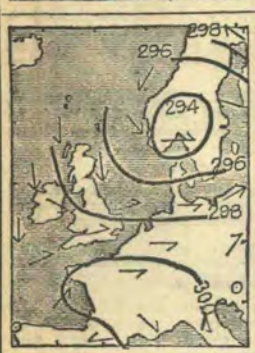
Weather at 8 A.M. fine at several western stations, cloudy or dull generally, with much rain in the S.E. and some in the N.E. Heavy rain falling in the N.E. of Scotland during day.

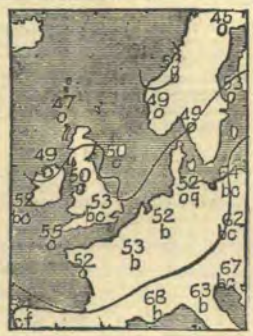
Temperature changing irregularly but inclined to rise in most places, ranging from 55° at Cambridge to 46° at Wick. Maxima exceeding 60° at Roche's Point and in London only, varying between 50° and 60° elsewhere.

Wind varying a good deal, but northerly at the majority of northern and western stations westerly in the S. and over France, and south-westerly to south-easterly over the North Sea; strong in S., and blowing a gale at Cape Gris Nez and Rochefort. Little change later.

Sea high in the Bay of Biscay, rough on our S.W. and S.E. coasts.

Barometer rising briskly on our western coasts and over the N. of Spain, slightly over the Bay of Biscay, falling elsewhere. Complicated depression lying over S.E. of England and southern portion of North Sea, subsequently moving eastward.





Wednesday, June 4.

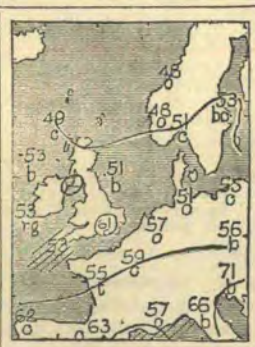
Weather fine in the S. and S.W. and over the N. and N.E. of France, cloudy or dull in most other places, with rain at Aberdeen and Nottingham. Scarcely any rain fell over these Islands during the day.

Temperature fallen over France, the Netherlands, and W. of Ireland, risen elsewhere; varying from 55° at Scilly to 46° at Aberdeen. Maxima exceeding 60° in the S. of Scotland, the S. of Ireland, and central England, between 50° and 60° elsewhere.

Wind northerly to westerly over these Islands, the N. of France, and the North Sea, but easterly to southerly over the Bay of Biscay. Fresh in force over the North Sea, moderate or light elsewhere. A south-easterly breeze appearing in the S.W. later.

Sea moderate to smooth on all coasts.

Barometer fallen over the S. of Scandinavia and over the N. of Spain, risen elsewhere. Anticyclone shown over France, and rather important depression over S. Norway. Slight fall taking place in S.W. during day.



Thursday, June 5.

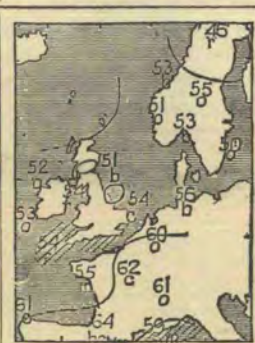
Weather clear or moderately so over the eastern, northern, and north-western parts of the Kingdom, cloudy or dull over Scandinavia, and dull and rainy on our S.W. coasts, as well as in the W. of France. Rain with lightning, except in the N. later,—rain-fall heavy in the S.E.

Temperature risen in most places, varying from 61° in London to 47° at Wick. Maxima during day higher than of late, 72° being recorded at Nottingham, 71° in London, and 69° at Cambridge.

Wind easterly over France and our S. and W. coasts, north-westerly to westerly in the N. and E. Fresh on eastern shores of North Sea and at Scilly. Little change later, beyond the gradual spreading of the E. wind.

Sea moderate to smooth, except at Scilly.

Barometer falling over the Bay of Biscay and on our S.W. coasts, rising in the E. and N. Area of high pressure over these Islands, with cyclones over Bay of Biscay and Skager Rack. South-western depression subsequently moving eastward.



Friday, June 6.

Weather fine in the N.E. and on eastern shores of North Sea; dull or cloudy elsewhere, with rain over our central and north-western districts; fog or mist in the W. and S. Fair in the S.E. all day, showery elsewhere.

Temperature risen somewhat over Scandinavia, changed irregularly elsewhere; uniform over these Islands, varying from 49° in the extreme N. to only 54° in London. Maximum in London 69°, at Charleville 79°, and at Biarritz 88°.

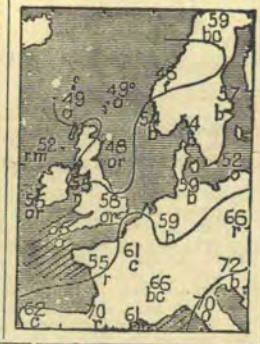
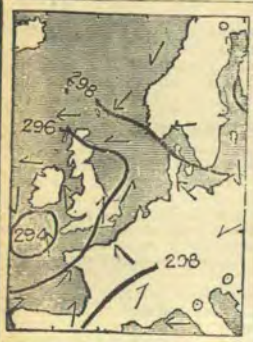
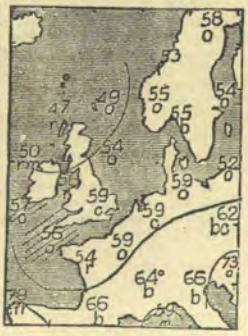
Wind south-westerly to westerly over France and the Channel, generally easterly elsewhere; moderate to light in force. Wind veering to S. in S.W. later.

Sea rather rough in western half of Channel, moderate to calm elsewhere.

Barometer rising at most of the continental stations, but falling over these Islands and N. Germany. Readings highest over south-western France, but relatively high over North Sea, with depressions on our S. and S.W. coasts. Depressions scarcely moving during day.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		**Saturday, June 7.** *Weather* still fine in southern part of Scandinavia, but dull or rainy in nearly all other places. Heavy rain falling very generally during the day—0·5 in. to 0·7 in. over England, 1·2 ins. at Ardrossan. *Temperature* risen considerably in Sweden, and slightly over France; changed again irregularly elsewhere. Varying from 48° in the N.E. districts to 58° in London. Maxima between 55° and 65°. *Wind* variable over Scandinavia, south-westerly in N. Spain, and south-south-easterly or south-easterly in most other places. Fresh in the S.W., light elsewhere. Wind easterly to south-easterly in our Islands all day, but veering to S.W. in the W. of France. *Sea* rough in the S.W., moderate to smooth elsewhere. *Barometer* still rising on eastern shores of North Sea, but falling elsewhere. Readings high over central Europe, with numerous small depressions passing over these Islands and the W. of France.
		**Sunday, June 8.** *Weather* fine in the S.E. of England and the Netherlands, cloudy or dull generally, with rain in several places. Weather improving generally later, though still showery. *Temperature* lower than on 7th over Scotland and France, higher over England and Norway, ranging over these Islands from 59° in London to 47° at Nairn. Maxima about 67° over central England, between 55° and 65° elsewhere. *Wind* south-westerly to southerly over France and England, easterly over the North Sea and Scotland, easterly to northerly in Ireland, fresh to moderate in force. Little change later. *Sea* rough in the S.W., moderate to slight elsewhere. *Barometer* rising over the N. of Spain and greater part of France, falling over these Islands. Area of low pressure lying off our south-western coasts, and secondary disturbances in N.W.
		Monday, June 9. *Weather* fine at several French stations, but cloudy or dull generally, with fog in Scotland and showers of rain in many places. Sky clearing considerably later; fine evening. *Temperature* fallen a little over the Channel, scarcely changed elsewhere; varying from 58° at Nottingham to 47° at Aberdeen. Maxima ranging from 53° in the N.E. to 69° at Nottingham. *Wind* northerly in Ireland, westerly in the S., southerly in the E., and easterly in the N. Fresh in force in the S.W. Little change later. *Sea* moderate to smooth, except at Stornoway, Hurst Castle, and off Ushant. *Barometer* rising over the whole of western Europe. Readings highest over Spain, lowest over our western coasts. Areas of low pressure noticed on 8th filling up. Barometer rising all day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
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VOL. II. No. 24.] WEEK ENDING MONDAY, JUNE 16, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Spurn Head, Kelsteru (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth, Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	66	36	52	4 below.	5	4	0 (average).
	2. ENGLAND, NORTH-EAST	71	45	55	3 below.	4	9	4 more.
	3. ENGLAND, EAST	71	42	57	3 below.	5	12	7 more.
	4. MIDLAND COUNTIES	72	42	57	3 below.	6	16	11 more.
	5. ENGLAND, SOUTH	70	44	57	3 below.	6	10	5 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	70	40	56	0 (average).	3	8	4 more.
	7. ENGLAND, NORTH-WEST	70	46	57	2 below.	4	10	4 more.
	8. ENGLAND, SOUTH-WEST	64	48	55	5 below.	7	23	20 more.
	9. IRELAND, NORTH	68	45	56	1 below.	6	9	?
	10. IRELAND, SOUTH	70	42	57	2 below.	6	13	7 more.

General Remarks.

Weather again generally dull and very showery, but with occasional intervals of bright sunshine. A good deal of fog reported on several days in the northern districts, and some in the south on Sunday. Thunderstorms very general during the early part of the week. *Temperature* at its mean value in "Scotland, W.," but a little below the mean in all other districts, the deficit being least over Ireland and in "England, N.W.," greatest in "England, S.W." Maxima low generally for the season, but slightly above 70° over the midland and eastern districts on one or two occasions. No very low minima reported.

Rainfall more than the mean almost everywhere; in the more northern districts the excess was inconsiderable, but over the midland counties it amounted to eleven tenths of an inch, while in "England, S.W.," it was as much as two inches. The greater part of the fall in the latter district occurred on the 14th and 15th.

Wind generally southerly (S.E. to S.W.) during early part of week, but easterly at all but the most southern stations on the 15th or 16th. Winds generally light or moderate in force.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	Rainfall. No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	57	40	49·5	− 5·7	6	0·14	−0·24
	Aberdeen	62	36	51·1	− 4·8	4	0·38	−0·02
	Glenalmond	66	44	54·9	− 1·3	4	0·40	?
	Leith	66	46	52·8	− 3·5	5	0·60	+0·17
2. ENGLAND, N.E.	Shields	68	48	54·0	− 3·4	4	1·23	+0·85
	Durham	71	46	56·1	− 1·6	4	0·80	+0·38
	Scarborough	66	48	55·9	− 2·1	3	0·69	+0·23
	York	70	45	57·2	− 1·0	4	0·74	+0·20
	Spurn Head	61	47	53·5	− 5·2	5	0·68	?
	Kelstern (Lincolnshire) ℳ	65	46	54·6	− 4·5	5	0·99	+0·56
3. ENGLAND, E.	Yarmouth	60	50	55·2	− 3·8	4	0·55	+0·06
	Cambridge	70	45	58·3	− 1·9	5	1·27	+0·85
	Audley End (Saffron Walden) ℳ	71	42	58·0	− 2·5	5	1·07	+0·65
	Rothamsted	68	43	56·8	− 3·8	7	1·70	+1·21
4. MIDLAND COUNTIES	Nottingham	72	46	57·5	− 1·9	4	1·02	+0·51
	Loughborough	71	46	56·7	− 2·9	5	1·29	+0·73
	Leicester	68	47	56·4	− 3·5	7	1·55	+0·98
	Shrewsbury ℳ	68	42	56·2	− 3·4	7	1·67	+1·28
	Hereford ℳ	68	46	57·1	− 2·5	7	2·76	+2·33
	Cirencester	68	45	56·3	− 4·0	6	1·54	+1·01
	Oxford	66	47	57·2	− 3·8	7	1·52	+1·05
5. ENGLAND, S.	London	69	48	58·6	− 1·9	6	0·72	+0·22
	Marlborough ℳ	70	46	57·8	− 2·9	7	1·58	+1·12
	Strathfield Turgiss ℳ	69	44	57·7	− 2·6	7	1·57	+1·17
	Dover	64	50	56·8	− 2·1	5	0·49	+0·04
	Hastings	67	49	56·4	− 2·7	6	0·44	+0·13
	Hurst Castle	61	50	55·9	− 3·5	6	1·43	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	68	48	57·7	+ 2·4	2	0·21	?
	Glasgow	68	45	56·0	− 0·1	5	0·93	+0·26
	Ardrossan	70	46	57·4	+ 1·4	4	0·68	+0·17
	Silloth	69	41	56·6	− 0·6	2	0·96	+0·52
	Douglas (Isle of Man)	65	40	54·0	− 3·1	3	0·95	+0·57
7. ENGLAND, N.W.	Stonyhurst	67	46	55·4	− 2·9	5	1·17	+0·48
	Manchester	65	47	55·8	− 3·2	4	0·81	+0·22
	Liverpool Observatory (Bidston)	68	48	57·8	− 1·2	3	1·37	+0·91
	Holyhead	70	50	57·4	− 1·0	3	0·47	+0·10
8. ENGLAND, S.W.	Pembroke	60	49	54·0	− 5·0	6	2·93	+2·55
	Barnstaple							
	Falmouth	64	50	56·7	− 3·7	7	2·11	+1·51
	Plymouth	64	50	57·1	− 3·2	7	2·23	+1·84
	Prawle Point	59	48	53·6	− 6·4	7	2·06	?
9. IRELAND, N.	Mullaghmore	64	50	56·5	− 1·2	7	0·33	?
	Brookeborough	68	45	57·7	− 0·1	5	0·54	?
	Armagh	67	48	56·9	− 0·6	5	0·81	+0·46
	Donaghadee	64	46	53·8	− 3·5	5	1·73	?
10. IRELAND, S.	Dublin	65	48	56·4	− 1·4	5	0·93	+0·33
	Kingstown	66	47	55·6	− 2·3	6	1·06	+0·69
	Parsonstown	65	44	55·6	− 2·2	5	1·65	+1·16
	Roche's Point	70	49	60·1	+ 1·4	7	2·07	+1·49
	Valentia	63	42	55·4	− 2·9	6	0·55	−0·12
SCOTLAND, N.	Sumburgh Head	52	44	47·7	− 3·6	3	0·03	−0·25
	Stornoway	59	43	50·1	− 3·2	0	—	−0·71
	Wick	53	41	48·2	− 5·6	2	0·04	−0·30
——	Scilly (St. Mary's)	62	50	56·3	− 4·0	7	1·24	+0·74
	Jersey (Noirmont)	65	48	57·2	− 2·8	7	1·25	+0·91

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

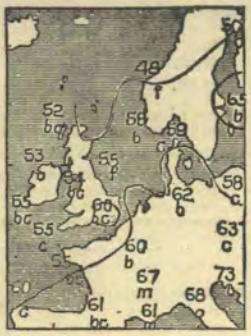
II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending June 16, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, June 10.

Weather misty or foggy in Scotland and the N. of England, clear or moderately so elsewhere. Fine most of the day, but thunderstorms and rain at Shields in the morning and in different places in the evening or night.

Temperature risen slightly generally, varying from 60° in London to 49° in N. Scotland. Maxima 70° at Roche's Point and Cambridge, 68° in London, and between 55° and 65° in most other places.

Wind easterly both in the S.W. of France and the N. of Scotland, but southerly on most of our coasts, and westerly on the eastern shores of the North Sea; moderate to light in force. Wind backing to E.S.E. at Scilly later.

Sea slight to smooth.

Barometer uniformly high over France and the North Sea, low off our N.W. coasts and off the N.W. of Spain. Mercury rising generally, but falling at Coruña, the decrease spreading to our S.W. coasts later.

Wednesday, June 11.

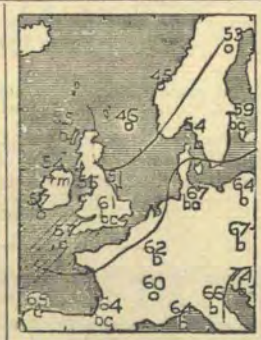
Weather fine at first in the north-western, eastern, and south-eastern districts and over the greater part of the Continent, cloudy or dull elsewhere, with rain in the S.W. Much rain general later—especially at Cambridge and Cape Gris Nez.

Temperature lower in the N.E. of England and over Norway than on the previous day, changing irregularly elsewhere; varying at 8 A.M. from 60° in London and Leith, to 48° at Wick. Maxima 70° at Ardrossan, 69° at Queenstown, and 68° at York.

Wind is light and variable over Scotland and the North Sea, moderate from W. to S.W. over France and the Channel, from S.E. over England, and from E. over Ireland. Wind veering a little during day.

Sea moderate to smooth.

Barometer highest over central Europe and the North Sea, lowest off our S.W. coasts. Mercury rising on our N. and E. coasts, Norway, Denmark, and the E. of France, falling elsewhere. Falling, except in the S., during the day.



Thursday, June 12.

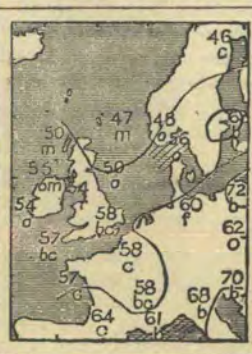
Weather locally fine at a few stations, but generally unsettled and cloudy, with rain in the W. Rain at most stations during day and thunderstorms in some places.

Temperature fallen a little, except in the S.W. and over N. Germany, varying from 61° in London to 47° in Aberdeen. Maxima during day 70° at Nottingham and 68° at Roche's Point, between 55° and 65° in most other places, but as low as 52° in the N.E.

Wind north-westerly to westerly in the S.W., south-westerly to southerly in the S. and E., easterly in the N.; blowing very freshly in the W. of France and over the Channel, light elsewhere. Little change later.

Sea rough at the mouth of the Channel, slight elsewhere.

Barometer highest over N. Spain, and an anticyclone found between Scotland and Norway; pressure lowest over Lapland, but large area of low pressure over these Islands. Rising over France and our S. and S.W. coasts, falling elsewhere. Rise becoming general in the evening.



Friday, June 13.

Weather locally fine in a few districts, notably the S.E. of England, but more or less cloudy generally elsewhere, with rain over the Irish Sea. Some rain subsequently occurring in the S. and W., and thunder over central England.

Temperature changed very irregularly, varying from 58° in London to 47° in the N.E. Maxima 70° at Cambridge, 68° at Roche's Point and in London.

Wind is moderate to fresh from the westward over France, the Channel, and the eastern shores of the North Sea, but is very light and variable over the greater part of our Islands. Wind had backed to S. at Scilly, and to S.W. at Valentia by the evening.

Sea moderate to calm.

Barometer highest S.W. France, lowest Sweden, but area of low pressure over these Islands, with several small centres of depression; rising over nearly the whole of western Europe, but falling slightly in the S. of Scandinavia.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, June 14.

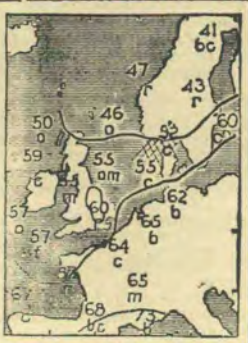
Weather fine in London, and locally clear at a few other stations, generally dull elsewhere, with rain in the S.W. and fog in the N. Rain falling during the day except in the N. of England.

Temperature a little higher in most places than on the 13th; ranging over these Islands from 59° in London to 47° at Stornoway. Maxima 72° at Nottingham, and about 70° at several inland stations.

Wind southerly to south-easterly generally, and drawing into E. in N. Scotland, but varying between N. and N.W. in Scandinavia; light in force on our coasts. Veering to S.W. over S. Ireland, and England later.

Sea rather rough at Valentia, moderate or slight elsewhere.

Barometer. Depression advancing to the S.W. of Ireland from the Atlantic, and passing slowly northward during the day. Barometer rising on the eastern shores of the North Sea and over the S.E. of England, falling elsewhere.



Sunday, June 15.

Weather moderately fine over N. Germany and the Netherlands, as well as the S.W. of France; cloudy or dull generally, foggy in the N., foggy and rainy in the S. and over the Channel. Heavy rain in the S.W. later.

Temperature risen a little, except in Sweden; varying over these Islands from 61° at Nottingham to 48° at Wick. Maxima between 60° and 69°, except in N. Scotland and S. England, where they were lower. Air close and oppressive.

Wind easterly over southern France, Scotland, and at Valentia, southerly in most other places; light on our own and neighbouring coasts, strong in Sweden; shifting to N.W. at Valentia and to S.W. in the S. of England later.

Sea moderate to smooth at our ports.

Barometer high and uniform over France and central Europe, lowest off our western coasts, with a subsidiary disturbance over Sweden. Mercury falling everywhere all day.

Monday, June 16.

Weather dull and unsettled in all parts of western Europe; rain at many southern stations, and fog in the E. and N. Rain general and heavy during the day, with thunder in some places.

Temperature fallen, except on eastern shores of North Sea, varying from 63° at Liverpool to 47° at Nairn. Maxima below 60° on our N.W., N.E., and S. coasts; between 60° and 70° elsewhere.

Wind easterly over the greater part of these Islands, but westerly on our S.W. coasts and over the W. of France; moderate to light in force. Wind little changed during day but increasing in strength.

Sea slight to smooth.

Barometer high over Mediterranean and Sweden, with large shallow depression over these Islands. Mercury falling everywhere. Slight recovery over France later.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⟶ = a gale; → = a fresh to strong breeze; → = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—6/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

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The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	74	42	56	1 below.	4	9	4 more.
	2. ENGLAND, NORTH-EAST	72	41	57	2 below.	4	5	1 more.
	3. ENGLAND, EAST	75	43	57	4 below.	5	4	1 less.
	4. MIDLAND COUNTIES	72	43	57	4 below.	5	5	1 less.
	5. ENGLAND, SOUTH	69	44	57	4 below.	5	5	0 (average).
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	71	45	56	1 below.	5	11	6 more.
	7. ENGLAND, NORTH-WEST	68	44	56	3 below.	6	7	1 more.
	8. ENGLAND, SOUTH-WEST	67	50	56	4 below.	5	7	4 more.
	9. IRELAND, NORTH	65	45	56	3 below.	6	8	?
	10. IRELAND, SOUTH	69	47	57	2 below.	6	14	9 more.

General Remarks.

Weather aga generally cloudy, showery, and unsettled, but with occasional fine warm intervals. Thunderstorms, with heavy rain, in the north of England on the 21st, and at Shrewsbury on the 17th and 23rd. Temperature still below the mean, the deficit varying from one degree in Scotland to two or three degrees in Ireland, and four degrees in most of the English districts. Thermometer slightly above 70° in many places on the 19th and reaching 75° a Rothamsted, but at end of week maxima were very little above 60° anywhere. No very low minima reported.

Rainfall about the mean in "England, S.," and rather less in "England, E." and Midland Counties, but more than the mean in all other districts. The excess was greatest in "Scotland, W.," and "Ireland, S.," and in the former district appears to have been due to the heavy showers which accompanied the thunderstorm of the 21st.

Wind generally southerly to south-westerly, but occasionally veering to N.W. or N. for a time on our western and northern coasts. Moderate or fresh in force during greater part of week, but blowing a fresh gale in the south-west and south on the 21st, and a strong breeze in the same districts on the 22nd.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	72	47	57·0	+ 0·9	3	0·50	+0·12
	Aberdeen	67	44	54·7	− 2·2	2	0·62	+0·23
	Glenalmond	65	42	53·8	− 3·3	5	1·07	?
	Leith	74	45	57·4	+ 0·3	5	1·26	+0·81
2. ENGLAND, N.E.	Shields	67	46	55·4	− 2·9	3	0·53	+0·15
	Durham	72	41	56·6	− 2·2	4	0·95	+0·50
	Scarborough	69	49	56·1	− 2·9	4	0·24	−0·23
	York	71	46	58·5	− 0·5	6	0·53	−0·02
	Spurn Head	68	49	58·2	− 1·8	4	0·17	?
	Kelstern (Lincolnshire) ℳ	69	43	56·7	− 3·5	4	0·37	−0·09
3. ENGLAND, E.	Yarmouth	68	48	57·2	− 2·9	2	0·10	−0·41
	Cambridge	70	45	58·2	− 2·8	5	0·54	+0·07
	Audley End (Saffron Walden) ℳ	68	43	56·5	− 4·9	6	0·44	+0·02
	Rothamsted	75	44	57·2	− 4·6	5	0·63	+0·10
4. MIDLAND COUNTIES	Nottingham	72	44	58·8	− 1·6	5	0·49	−0·04
	Loughborough	70	45	58·1	− 2·6	5	0·40	−0·17
	Leicester	68	46	57·9	− 3·0	5	0·26	−0·32
	Shrewsbury ℳ	68	43	56·5	− 3·9	5	1·21	+0·82
	Hereford ℳ	66	48	57·0	− 3·3	5	0·20	−0·23
	Cirencester	67	45	55·8	− 5·5	5	0·23	−0·33
	Oxford	68	48	57·8	− 4·3	5	0·36	−0·12
5. ENGLAND, S.	London	68	46	58·2	− 3·6	4	0·50	−0·02
	Marlborough ℳ	68	46	56·9	− 4·8	5	0·57	+0·12
	Strathfield Turgiss ℳ	69	44	57·5	− 3·9	4	0·37	−0·07
	Dover	65	51	57·2	− 3·2	5	0·16	−0·28
	Hastings	65	49	56·2	− 4·1	4	0·54	+0·21
	Hurst Castle	67	52	57·2	− 3·1	5	0·83	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	65	49	56·5	+ 0·6	5	1·24	?
	Glasgow	67	49	57·2	+ 0·4	6	0·99	+0·29
	Ardrossan	64	50	56·7	− 0·1	6	0·86	+0·34
	Silloth (Cumberland)	71	45	57·4	− 0·7	6	1·52	+1·08
	Douglas (Isle of Man)	60	49	53·9	− 4·2	4	1·10	+0·71
7. ENGLAND, N.W.	Stonyhurst	65	45	56·1	− 2·9	6	0·52	−0·22
	Manchester	67	44	55·4	− 4·6	5	0·68	+0·04
	Liverpool Observatory (Bidston)	68	50	57·3	− 2·6	5	0·47	−0·06
	Holyhead	63	50	56·7	− 2·7	6	1·11	+0·74
8. ENGLAND, S.W.	Pembroke	59	51	54·7	− 5·3	5	0·70	+0·33
	Barnstaple							
	Falmouth	62	52	56·9	− 4·1	5	0·77	+0·17
	Plymouth	67	53	58·8	− 2·3	6	1·01	+0·62
	Prawle Point	61	50	54·7	− 6·0	3	0·28	?
9. IRELAND, N.	Mullaghmore	63	45	56·0	− 2·8	5	0·64	?
	Brookeborough	65	45	56·0	− 2·7	6	1·17	?
	Armagh	63	47	55·9	− 2·4	6	0·51	+0·09
	Donaghadee	64	47	54·3	− 4·0	6	0·76	?
10. IRELAND, S.	Dublin	65	47	57·2	− 1·8	5	0·41	−0·20
	Kingstown	67	48	56·8	− 2·0	7	0·64	+0·27
	Parsonstown	68	47	57·3	− 1·5	6	0·96	+0·48
	Roche's Point	69	48	58·0	− 2·0	6	2·24	+1·68
	Valentia	61	49	55·6	− 3·6	6	2·95	+2·25
SCOTLAND, N.	Sumburgh Head	59	43	50·7	− 1·6	3	0·34	+0·06
	Stornoway	63	44	53·9	0·0	1	0·19	−0·54
	Wick	65	43	52·9	− 1·5	2	0·09	−0·29
——	Scilly (St. Mary's)	63	49	56·6	− 4·3	7	0·88	+0·32
	Jersey (Noirmont)	62	49	56·0	− 5·0	4	0·46	+0·14

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending June 23, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, June 17.

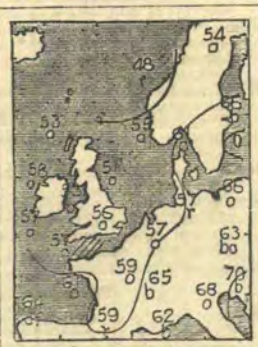
Weather fair in south-eastern districts, cloudy or dull generally, with rain in the S.W., W., and N., mist in the W. of Ireland. Rain falling except in Ireland and E. of England during day.

Temperature rather higher than on 16th in south-eastern districts and over Scandinavia, lower elsewhere, particularly in Netherlands and E. France. Uniform over western Europe. Maxima below 60° in the extreme S.W., W., and N., between 60° and 68° elsewhere.

Wind north-easterly in the N., north-westerly in the W., westerly over France, and south-westerly in S.E. and over North Sea; strong at Scilly and over Bay of Biscay. Wind backing to N. or N.W. in the N. later, little change elsewhere.

Sea rather rough at Scilly, moderate to smooth elsewhere.

Barometer high over Sweden and S. France, large area of low pressure over these Islands; mercury rising a little in S.W. and S.E., but falling generally. Depression moving north-eastward later.



Wednesday, June 18.

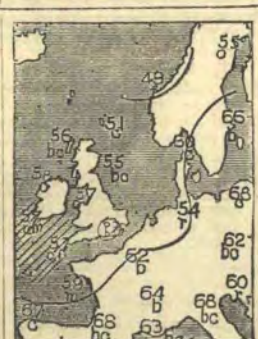
Weather fine at some western and north-western stations, but cloudy or dull generally. Sky clearing considerably in the E. and S.E. later, but heavy rain setting in in S. Ireland at night.

Temperature risen a little on our western and northern coasts, and over Sweden, fallen in the S.E. of England, and changed irregularly elsewhere, varying between 50° and 60° over these Islands. Maxima between 60° and 68°, except on our N.E. coasts.

Wind north-westerly to westerly on most of our own and the French coasts, but backing to S. in the W. of Ireland; light or moderate in force. Southerly wind, spreading eastward and northward later, and increasing at Valentia.

Sea moderate to smooth, except at Jersey.

Barometer highest S. France, lowest over Denmark, the depression noticed over us on 17th having moved north-eastward. Mercury almost steady at Valentia, and steady fall taking place there later.



Thursday, June 19.

Weather fine over Scotland, the E. and S.E. of England, and E. of France, dull or cloudy elsewhere, with rain, fog, or mist in the S.W. Rain, except at our northern stations, during the day or following night.

Temperature changed irregularly, but risen a little in the N. and E., fallen in the W.; varying from 63° in London to 52° at Donaghadee. Temperature highest N., maximum at Leith 74°, at Nottingham 71°, and at Prawle Point only 56°.

Wind southerly over the N. of France and on most of our coasts, but north-easterly in Denmark, and westerly in N. Germany; light in the E., strong in the W. Moderate to strong gale experienced in the W. later.

Sea rather rough in the S.W.

Barometer highest over France, with depression over Denmark, and fresh and rather important disturbance approaching our W. coasts. Mercury rising in eastern half of our area, falling briskly western. Depression moving slowly north-eastward.

Friday, June 20.

Weather cloudy or dull at our eastern and north-eastern stations, as well as over nearly the whole of France, fine or moderately so elsewhere; rain falling at Cambridge, Yarmouth, and Rochefort. Sky clouding in the S.W. later and rain general.

Temperature considerably higher over N. Germany and slightly higher over nearly the whole of these Islands and France than on the 19th, lower over Scandinavia. Uniform over north-western Europe. Maxima between 65° and 70° except in the S.W.

Wind westerly over the Bay of Biscay, southerly to south-westerly on our coasts; light or moderate generally, but fresh in force in the S.W. and N.W. Wind veering somewhat in the afternoon but backing again in evening.

Sea rough at many south-western and western ports.

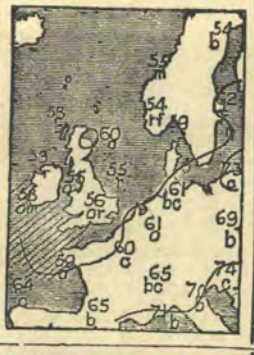
Barometer recovering somewhat in the S.W., falling in nearly all other places. Pressure highest over southern France, and lowest off our N.W. coasts, with a large subsidiary disturbance over Norway. Mercury falling again in S.W. in the evening.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.



Saturday, June 21.

Weather very unsettled; fine and bright in N. Scotland and S. and E. of France, dull elsewhere, with rain over Ireland and England. Rain general during day, heavy in E. Scotland and S. Ireland.

Temperature fallen in most places; uniform between 50° and 60° over Scandinavia, these Islands, and the N. of France, but as high as 65° at Lyons and 71° at Toulon. Maxima low, varying from 57° to 67°.

Wind northerly in Sweden, but southerly (S.W. to S.E.) over nearly the whole of western Europe. Blowing a moderate gale in the S.W. and freshly or strongly at most of the western and southern ports. Wind veering to W. and reaching a fresh gale in the S.W. and S. later.

Sea rough S.W. and S.

Barometer rising over the Netherlands, N. Germany, and on our E. and N. coasts; falling elsewhere. Large depression advancing towards Ireland and passing over us in a north-easterly direction during the day.

Sunday, June 22.

Weather fine in many parts of France and at several of our S. and E. coast stations, but cloudy or dull elsewhere. Weather improving in the S.E. in the afternoon, but showers of rain falling in the N.W.

Temperature had not changed much generally, but fallen somewhat over Scotland and France; uniform these Islands, varying from 61° at Scarboro' to 51° in the Shetlands. Maxima low.

Wind moderate on the E. coast of England and over the Netherlands, fresh or strong elsewhere; northerly in the W. of Scotland, westerly over Ireland and England, south-westerly over the North Sea. Fresh in force all day in the S.

Sea high at Hurst Castle, rather rough in the W. and S.W. generally.

Barometer falling in the E. of Scotland and on eastern shores of North Sea; rising elsewhere—quickly in the S.W. Well marked depression between Scotland and Norway, moving slowly north-eastward later.

Monday, June 23.

Weather cloudy or dull over nearly the whole of western Europe, with showers of rain over Ireland. Rain falling except in the E. and N. of Scotland later.

Temperature changing little and irregularly, ranging from 60° at Nottingham to 52° at Prawle Point and in the Shetlands. Maxima low, less than 60° in the S.W., and between 60° and 66° elsewhere.

Wind southerly to south-westerly on our coasts, and westerly over Denmark and Norway; strong in the W. of Ireland and fresh over Denmark, moderate elsewhere. Moderate to fresh southerly wind all day.

Sea rough south-west.

Barometer highest over France, with depression noticed on 22nd disappearing over Sweden, but new disturbance approaching Ireland. Mercury falling generally during day, and large shallow depression shown on our N.W. coasts.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—6/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 26.] WEEK ENDING MONDAY, JUNE 30, 1879. [*Price 2d.*

[*Annual subscription, post paid*, 12*s*. 6*d*.

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, Scarborough, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857–69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866–75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	66	42	55	2 below.	6	13	6 more.
	2. ENGLAND, NORTH-EAST	69	41	57	3 below	6	9	5 more.
	3. ENGLAND, EAST	71	45	58	4 below.	6	11	6 more.
	4. MIDLAND COUNTIES	71	41	57	5 below.	6	11	6 more.
	5. ENGLAND, SOUTH	71	45	58	4 below.	5	10	5 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	68	42	55	3 below.	6	20	13 more.
	7. ENGLAND, NORTH-WEST	66	38	56	5 below.	6	11	5 more.
	8. ENGLAND, SOUTH-WEST	69	48	57	5 below.	6	18	15 more.
	9. IRELAND, NORTH	65	43	55	4 below.	6	21	?
	10. IRELAND, SOUTH	69	41	56	4 below.	7	19	14 more.

General Remarks.

Weather again very showery and unsettled during the early part of the week, but improving considerably towards its close; rain, however, again setting in on the night of the 30th. Thunderstorms in many parts of England and Ireland on the 24th and 25th. Temperature still below the mean, the deficit amounting to two or three degrees in the more northern districts, four degrees in the south, and five degrees over the midland and south-western counties. Maxima seldom reaching 70° and frequently below 65° even over the midland districts.

Rainfall considerably more than the mean in most districts. In "Scotland, W.," "England, S.W.," and over Ireland the total fall for the week amounted to about two inches, or nearly an inch and a half more than the mean; in the north and east the excess was only about six tenths of an inch.

Wind generally southerly or south-westerly, moderate in force during the early part of the week, but freshening on the 26th and blowing a strong gale in the west on the night of the 27th. Wind again increasing on the night of the 30th.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	Rainfall. No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	66	47	56·2	− 0·6	6	1·05	+0·65
	Aberdeen	66	48	55·2	− 2·2	6	0·33	−0·08
	Glenalmond	62	42	53·3	− 4·4	7	2·29	?
	Leith	66	48	56·9	− 0·8	6	1·58	+1·10
2. ENGLAND, N.E.	Shields	67	46	57·1	− 1·9	5	0·55	+0·15
	Durham	68	42	55·5	− 4·2	7	1·41	+0·92
	Scarborough	67	47	57·5	− 2·3	7	0·98	+0·48
	York	69	44	56·3	− 3·4	7	0·89	+0·35
	Spurn Head	67	47	57·5	− 2·6	5	0·27	?
	Kelstern (Lincolnshire) ℳ	67	41	55·8	− 5·1	5	1·19	+0·72
3. ENGLAND, E.	Yarmouth	69	48	57·5	− 3·4	6	0·88	+0·35
	Cambridge	71	46	58·0	− 4·0	6	1·04	+0·55
	Audley End (Saffron Walden) ℳ	69	47	57·9	− 4·4	7	?	?
	Rothamsted	69	45	57·5	− 5·3	6	1·40	+0·83
4. MIDLAND COUNTIES	Nottingham	71	41	58·0	− 3·5	6	1·12	+0·56
	Loughborough	69	45	57·6	− 3·8	4	0·55	−0·02
	Leicester	68	45	56·8	− 5·1	4	0·87	+0·29
	Shrewsbury ℳ							
	Hereford ℳ	67	43	56·8	− 4·3	6	0·77	+0·32
	Cirencester	66	43	55·5	− 6·8	7	2·05	+1·47
	Oxford	68	47	57·6	− 5·6	6	1·45	+0·93
5. ENGLAND, S.	London	71	47	59·0	− 3·9	4	1·32	+0·79
	Marlborough ℳ	68	45	57·6	− 5·2	5	1·33	+0·87
	Strathfield Turgiss ℳ	68	46	58·0	− 4·2	6	1·63	+1·16
	Dover	69	51	59·0	− 2·2	3	0·17	−0·27
	Hastings	67	52	57·7	− 3·5	4	0·32	−0·02
	Hurst Castle	63	53	57·4	− 3·8	5	1·33	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	62	46	54·9	− 1·3	7	2·62	?
	Glasgow	65	48	55·8	− 2·0	7	2·23	+1·48
	Ardrossan	61	50	55·5	− 2·1	7	2·33	+1·81
	Silloth (Cumberland)	68	42	56·3	− 2·8	6	1·54	+1·07
	Douglas (Isle of Man)	59	45	53·4	− 5·2	5	1·33	+0·91
7. ENGLAND, N.W.	Stonyhurst	65	47	55·5	− 4·5	6	1·62	+0·83
	Manchester	66	38	53·0	− 7·7	7	1·41	+0·73
	Liverpool Observatory (Bidston)	66	50	57·2	− 3·3	5	0·47	−0·16
	Holyhead	63	50	56·4	− 3·8	6	0·87	+0·51
8. ENGLAND, S.W.	Pembroke	58	50	54·8	− 6·0	5	1·64	+1·26
	Barnstaple	69	49	60·0	− 1·2	6	1·84	+1·30
	Falmouth	62	49	56·9	− 5·0	6	2·50	+1·90
	Plymouth	67	50	58·4	− 3·4	6	1·97	+1·51
	Prawle Point	60	48	54·6	− 6·9	5	0·99	?
9. IRELAND, N.	Mullaghmore	63	48	55·6	− 4·2	6	1·52	?
	Brookeborough	65	43	55·1	− 4·5	7	2·76	?
	Armagh	64	47	55·8	− 3·4	7	2·25	+1·73
	Donaghadee	63	48	54·6	− 4·4	6	1·79	?
10. IRELAND, S.	Dublin	69	48	58·0	− 1·9	7	1·47	+0·87
	Kingstown	68	41	56·4	− 3·3	7	1·64	+1·24
	Parsonstown	64	43	55·1	− 4·5	7	1·32	+0·81
	Roche's Point	66	45	57·0	− 3·6	7	3·02	+2·45
	Valentia	61	44	55·1	− 5·0	7	2·27	+1·53
SCOTLAND, N.	Sumburgh Head	62	41	51·2	− 1·6	2	0·05	−0·22
	Stornoway	58	45	52·8	− 1·8	4	0·61	+0·37
	Wick	65	45	54·6	− 0·2	3	0·06	−0·34
——	Scilly (St. Mary's)	63	49	57·2	− 4·6	6	1·91	+1·35
	Jersey (Noirmont)	67	51	57·4	− 4·4	5	0·40	+0·07

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending June 30, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, June 24.

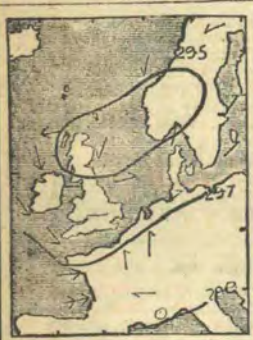
Weather clear in extreme S. of France and N. of Scotland, more or less cloudy in nearly all other places, with rain in the S.W. and S.E. Rain general later, with thunderstorms over Ireland and England.

Temperature risen a little in the S.W. of France, changes exceedingly slight elsewhere; readings varying from 6° at Nottingham to 52° in the N.W. and N.E. Maxima very low for the season, ranging from 55° to 65°.

Wind south-westerly to westerly over France and our more southern stations, southerly in the E., and easterly in the N.; blowing freshly over the Bay of Biscay, light or moderate on our coasts. Wind veering to W. in the E. later.

Sea rough in the Channel.

Barometer highest over the S.W. of France, low off our N.W. coasts and over the Baltic; the mercury falling nearly everywhere, with large depression over our north-western stations, but slight recovery taking place in the S.W., and spreading slowly eastward during day.



Wednesday, June 25.

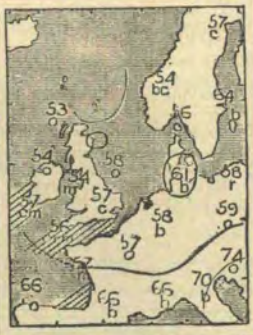
Weather cloudy or dull over the greater part of France, the E. of Scotland, and some central stations; moderately fine elsewhere. Rain falling at Cambridge and in London. Rain in most places later, with thunder in the N.E.

Temperature a little lower in most places than on 24th; readings uniform, ranging over these Islands from 51° to 59°. Maximum at Nottingham 71°, but highest readings elsewhere between 55° and 65°.

Wind north-easterly in the N. of Scotland, northerly over Ireland, westerly to south-westerly over the Channel and North Sea; moderate to light in force generally. Wind backing to W. in Ireland later.

Sea rough at Stornoway and Hurst Castle.

Barometer highest over France, with a large area of low pressure stretching from Scotland across the North Sea to Norway. Mercury rising in the W. and N.W., falling elsewhere. Rising generally later.



Thursday, June 26.

Weather fine in the S. of France and the Netherlands, and locally clear at some of our eastern stations: cloudy or dull generally, rain falling in the W. and S.W. Rain subsequently falling at most of our stations but scarcely any on the Continent.

Temperature risen in most places,—briskly in E. Scotland; readings varying from 62° at Aberdeen to 53° at Prawle Point. Maxima again low, under 60° in the S.W. and only slightly above elsewhere.

Wind generally southerly to south-westerly over western Europe, but a light north-easterly breeze still reported from N. Scotland. Wind blowing strongly in S.W. and S., and continuing fresh or strong all day.

Sea rough S. and S.W.

Barometer still highest over central France, lowest off our W. coasts. Mercury falling briskly in S.W. and W., but rising elsewhere. Large depression advancing to W. Scotland during day.

Friday, June 27.

Weather fine at the majority of the Continental stations, dull over these Islands with rain or fog in many places. Rain except in the S.E. during the day, and thunder at Biarritz in the evening.

Temperature risen on the Continent and our southern and south-eastern stations, fallen elsewhere; ranging from 61° in the S.E., to 53° in the N.E. and 54° in the Hebrides. Maxima between 60° and 70° at nearly all our stations.

Wind south-westerly to southerly over the N. of France and the British Isles, westerly in Denmark, fresh to strong except in the E., and blowing a gale in the W. Strong south-westerly gale in the W. later.

Sea high at Valentia, rough in the W. and S. generally.

Barometer highest over France, lowest off our N.W. coasts; rising over France and our E. coasts, falling quickly in the W. and large depression shown off Ireland. Slight recovery in the S.W. in the evening.

(Continued over.)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Saturday, June 28.

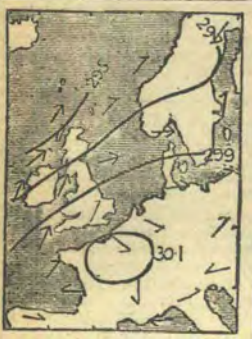
Weather fine in Sweden, the Netherlands, and N.E. of France, cloudy or dull generally with rain in the S.W. Rain occurring, except in the S.E., rather heavy showers falling in the N.W.

Temperature risen considerably in N. Germany and N. France, changed little elsewhere. Readings ranging from 54° in the Hebrides, to 61° at Dover and 73° at Toulon. Maxima higher than of late, reaching 70° over central England.

Wind south-westerly to southerly over France, these Islands, and the North Sea, but more variable in the Netherlands. Fresh south-westerly winds prevailing all day.

Sea rough in the W., N., and S.

Barometer highest over S. France, lowest off our N.W. coasts, but with small depression shown over Belgium. Mercury rising except in the S.E. Both depressions moving away later, the large one northward, the smaller eastward, and barometer rising everywhere.



Sunday, June 29.

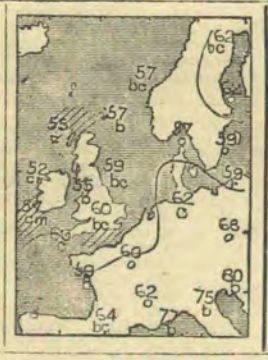
Weather clear or moderately so over nearly the whole of western Europe, but rain is reported from the Baltic, and on our S.W. coasts the sky is becoming cloudy with showers. Slight showers falling except in the S. during the day.

Temperature fallen several degrees over N. Germany and the N.E. of France, changed little elsewhere; readings ranging from 64° in London to 53° at Valentia. Maxima between 60° and 70°, except at Pembroke and Prawle Point.

Wind north-westerly to northerly in the E. of France, and easterly at Toulon, but south-westerly at nearly all other stations, fresh and gusty generally. Wind veering towards W. during day.

Sea high off the Hebrides, rough in the W. and S.W.

Barometer highest over N. France lowest off the N.W. of Scotland, with moderate gradients intervening. Mercury rising rather briskly. Slight fall in the S.E. later.



Monday, June 30.

Weather clear over Great Britain, the E. of Ireland, and N. of France, cloudy elsewhere, with showers in W. Ireland. Very heavy rain setting in at night all over the country.

Temperature a little lower in most places than on the 29th, readings ranging from 61° at Nottingham to 52° at Mullaghmore. Maxima again between 60° and 70° except on our S.W. coasts.

Wind north-easterly in the S.E. of France, westerly to south-westerly in most other places; moderate to fresh in force. Backing to S. later, and increasing to a moderate to fresh gale, except in Scotland, in the early morning of the 1st.

Sea rough at Hurst Castle, Valentia, and Stornoway.

Barometer high and uniform over France, low to the northward of Scotland, moderate gradients still prevailing. Rapid fall taking place in W. of Ireland later, and deep depression advancing from the Atlantic.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⇒ = a gale; → = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[48.—150.—7/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 27.] WEEK ENDING MONDAY, JULY 7, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	66	47	55	4 below.	6	11	7 more.
	2. ENGLAND, NORTH-EAST	66	46	57	4 below.	4	6	1 more.
	3. ENGLAND, EAST	71	41	56	7 below.	6	10	4 more.
	4. MIDLAND COUNTIES	72	46	56	6 below.	6	6	1 more.
	5. ENGLAND, SOUTH	71	46	57	6 below.	6	13	8 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	64	43	54	4 below.	6	15	10 more.
	7. ENGLAND, NORTH-WEST	69	41	54	7 below.	6	18	11 more.
	8. ENGLAND, SOUTH-WEST	66	48	56	6 below.	6	10	5 more.
	9. IRELAND, NORTH	64	47	54	6 below.	7	16	?
	10. IRELAND, SOUTH	65	47	56	5 below.	7	13	8 more.

General Remarks.

Weather has remained in precisely the same condition as for many weeks past, its general character being dull and showery, with very occasional fine intervals. Sharp thunderstorms occurred in some parts of England on the 2nd. Temperature again below the mean for the season, the deficit being least (four degrees) in Scotland and "England, N.E.," greatest (seven degrees) in "England, E.," and "England, N.W." The maxima seldom exceeding 65° even at our midland and southern stations, and occasionally below 60°. The minima also low.

Rainfall very considerably more than the mean in all the western and southern districts, as well as in "Scotland, E.," but the excess not so marked in the eastern and midland counties. Over Ireland rain fell every day, and in nearly all other districts six days out of the seven were rainy.

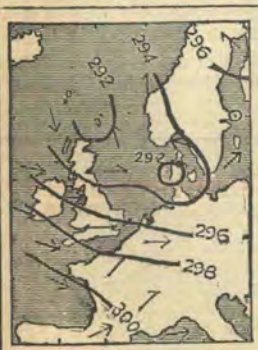
Wind generally from points between S. and W., but occasionally north-westerly on our western coasts. Fresh to strong gales blew in nearly all parts of the country on the 1st and 2nd, the wind during the latter part of the week continuing fresh and squally in many places.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	65	47	53·9	− 3·6	7	1·50	+1·06
	Aberdeen	65	49	55·2	− 2·6	7	1·22	+0·75
	Glenalmond	63	47	52·7	− 5·6	4	1·09	?
	Leith	66	49	56·1	− 2·0	5	0·76	+0·24
2. ENGLAND, N.E.	Shields	63	48	58·1	− 1·5	4	0·63	+0·20
	Durham	66	46	55·7	− 4·3	3	0·75	+0·23
	York	66	48	56·4	− 4·0	4	0·50	−0·03
	Spurn Head							
	Kelstern (Lincolnshire) ℳ	66	46	56·0	− 5·3	4	0·49	+0·01
3. ENGLAND, E.	Yarmouth	69	47	55·9	− 5·8	6	0·71	+0·15
	Cambridge	71	46	57·0	− 5·9	6	0·95	+0·45
	Audley End (Saffron Walden) ℳ	69	50	57·2	− 5·8	7	1·14	+0·68
	Rothamsted	69	41	55·2	− 8·5	6	1·09	+0·49
4. MIDLAND COUNTIES	Nottingham	72	46	58·6	− 3·7	5	0·51	−0·07
	Loughborough	68	48	56·9	− 4·9	5	0·63	+0·09
	Leicester	67	48	55·2	− 7·6	6	0·35	−0·23
	Shrewsbury ℳ							
	Hereford ℳ	67	46	56·3	− 5·5	5	0·24	−0·26
	Cirencester	63	46	55·1	− 7·8	7	1·02	+0·42
	Oxford	65	48	55·9	− 7·9	6	1·03	+0·50
5. ENGLAND, S.	London	71	48	57·6	− 6·1	6	2·13	+1·59
	Marlborough ℳ	65	48	56·1	− 7·4	6	1·09	+0·61
	Strathfield Turgiss ℳ	68	46	56·6	− 6·1	5	1·00	+0·50
	Dover	64	50	56·9	− 5·3	7	0·80	+0·35
	Hastings	61	49	55·2	− 6·8	6	1·49	+1·13
	Hurst Castle	62	51	56·5	− 5·3	6	0·99	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	64	43	53·6	− 3·1	6	1·41	?
	Glasgow	63	48	54·2	− 4·0	6	1·42	+0·94
	Ardrossan	59	50	54·1	− 4·0	6	1·52	+0·96
	Silloth (Cumberland)	62	49	55·4	− 4·3	6	1·62	+1·11
	Douglas (Isle of Man)	58	48	53·2	− 6·1	6	1·31	+0·85
7. ENGLAND, N.W.	Stonyhurst	59	48	53·4	− 7·4	7	3·00	+2·16
	Manchester	69	41	53·2	− 7·8	5	1·80	+1·10
	Liverpool Observatory (Bidston)	61	49	54·9	− 6·0	5	0·74	+0·01
	Holyhead	61	49	54·8	− 5·8	7	1·45	+1·11
8. ENGLAND, S.W.	Pembroke	57	50	53·9	− 7·7	6	0·54	+0·14
	Barnstaple							
	Falmouth	62	51	56·4	− 6·0	6	1·31	+0·71
	Plymouth	66	51	57·8	− 4·5	6	1·12	+0·71
	Prawle Point	60	48	54·5	− 7·3	4	0·85	?
9. IRELAND, N.	Mullaghmore	59	48	53·0	− 7·1	7	2·71	?
	Brookeborough	61	47	53·5	− 6·4	7	1·90	?
	Armagh	61	48	53·7	− 6·1	7	1·16	+0·56
	Donaghadee	64	48	54·6	− 4·8	6	0·80	?
10. IRELAND, S.	Dublin	63	48	55·2	− 5·2	7	1·44	+0·86
	Kingstown	65	49	56·7	− 3·3	7	0·87	+0·45
	Parsonstown	62	47	54·8	− 5·3	7	0·85	+0·29
	Roche's Point	62	48	54·9	− 6·1	7	0·67	+0·07
	Valentia	62	49	55·7	− 4·9	7	2·55	+2·27
SCOTLAND, N.	Sumburgh Head	58	43	50·4	− 2·9	4	0·90	+0·63
	Stornoway	57	47	50·8	− 4·2	7	1·22	+0·48
	Wick	63	45	53·8	− 1·6	6	0·99	+0·59
——	Scilly (St. Mary's)	61	49	55·7	− 6·8	7	0·72	+0·16
	Jersey (Noirmont)	60	49	56·0	− 6·5	6	0·93	+0·57

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.
Scarboro' has ceased reporting since last week.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending July 7, 1879.

Synoptic Weather Charts.—8 a.m.		Weather during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Tuesday, July 1. *Weather* fine in the S. and E. of France, the eastern shores of the North Sea, and the extreme end of Scotland; cloudy, dull, and wet over nearly the whole of our Islands. Rain at all the more northern stations in the afternoon, but weather improving in the S. *Temperature* rather higher in S. France than on June 30th, lower in nearly all other districts; readings ranging from 58° at Dover to 51° at Ardrossan. Maxima very low for season, ranging from 65° at Nottingham to 52° at Aberdeen. *Wind* westerly in the S. of Ireland, southerly to south-easterly over Great Britain, and south-easterly to easterly in N. Ireland; strong to a gale in force over the Channel and England, fresh in Scotland and Ireland; strong to a gale generally all day. *Sea* rough or high, except off the Scotch coasts. *Barometer* highest over central Europe and lowest over our north-western stations. A deep depression found over the N. of Ireland, barometer fallen three quarters of an inch there and briskly elsewhere. Disturbance travelling north-eastward later.
		Wednesday, July 2. *Weather* very unsettled; fine at first over the Channel and many of our more southern and western stations; still dull elsewhere with rain in Scotland and Norway. Sharp thunder during day and heavy rain commencing in S.W. and S. later on. *Temperature* fallen over France little changed elsewhere; readings ranging from 59° at Nottingham to 51° at Stornoway. Maxima below 65° at all stations except Nottingham, and below 60° in the W. *Wind* strong to a gale from the westward on our own and the French coasts, fresh from S.W. in N. Germany and blowing a gale from S.E. in Norway; light and variable in Scotland. Strong westerly winds or gales all day over the United Kingdom. *Sea* high in the Channel, rough in the S., W., and N. *Barometer* highest over France, lowest over Scotland, with steep intervening gradients, especially in N.W. Disturbance noticed on 1st now off the W. of Scotland, and a subsidiary depression off the E. of Scotland. Both moving northward later.
		Thursday, July 3. *Weather* fine in extreme S. of France, but dull or cloudy generally, with rain and fog at our southern stations and over the Channel, as well as in N. Scotland. Rain during day except in the N.E. *Temperature* a little lower than on 2nd in most places; readings very uniform and low, slightly exceeding 60° in the S. of France and N. of Scandinavia, and varying between 50° and 60° elsewhere. Maxima between 55° and 65°. *Wind* north-westerly on our S.W. coasts, westerly to south-westerly over France and at our other stations, south-easterly in Norway; moderate in force over England and Ireland, but blowing strongly over France, the Channel, and W. of Norway, and very freshly in Scotland. Wind backing in the W. later. *Sea* high in the Bay of Biscay, rough in the N.W., W., and S. *Barometer* highest over the S.W. of France; a large depression over N. Scotland, and a small subsidiary travelling eastwards over S. England. Mercury rising N. England, falling elsewhere.
		**Friday, July 4.** *Weather* locally fine in a few places, but generally dull and rainy. Showers of rain fell during the day except in S. of France and at a few of our south-western stations. *Temperature* fallen in W. France, risen at our more eastern stations, changed little and irregularly elsewhere. Still very uniform, varying over these Islands from 58° at Dover to 51° in the Shetlands. Maxima between 55° and 65°. *Wind* north-westerly on the extreme western coasts of the United Kingdom and France, westerly in most other places, but easterly in the Skager Rack and southerly in the Shetlands. Fresh to strong except in the E. Little change later. *Sea* high off the N.W. of Ireland and at the mouth of the Loire; rough in the W. and S. generally. *Barometer* high over the S.W. of France and the Peninsula; large depression still shown near Scotland, but the small one noticed on 3rd now lying over Denmark. Barometer rising all day over our Islands and over greater part of North Sea.

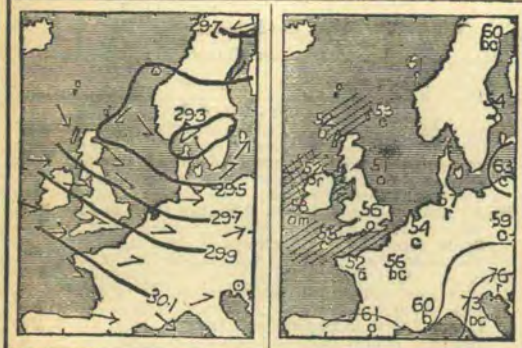
(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, July 5.

Weather cloudy or dull generally, with rain at Rochefort, Mullaghmore, and Cuxhaven. Rain showers occurring subsequently except in the N.E.

Temperature changed little and irregularly; readings uniform, varying from 51° in the N. of England to 61° at Biarritz and 60° at Haparanda. Maxima still low, ranging from 55° to 65° generally.

Wind north-westerly to westerly generally, but north-easterly to northerly over Scandinavia; moderate to strong in force. Little change in our Islands during the day.

Sea rough in the W. and S.

Barometer highest over the S.W. of France, with a complex area of low pressure lying over Denmark and the S. of Scandinavia. Barometer rising slowly all day in most places, but slight fall commencing in the evening at Valentia.

Sunday, July 6.

Weather fair at several eastern and northern stations, dull in the W., with rain in places. Rain subsequently extending eastward, and falling generally during the day.

Temperature risen a little; readings very uniform, varying over western Europe from 52° to 63°. Maxima low generally, but the thermometer reached 71° at Nottingham, while ranging between 55° and 65° elsewhere.

Wind north-westerly to westerly over the greater part of these Islands, France, and the North Sea, but a south-easterly wind appearing on our N.W. coasts. Wind backing to S.W. generally later.

Sea rough off the W. of Ireland, moderate to smooth elsewhere.

Barometer highest over the Peninsula and W. of France; a large depression passing away over Scandinavia, but a new disturbance approaching Ireland. Barometer falling briskly in W., and fall spreading eastward.

Monday, July 7.

Weather temporarily fair at several of the northern stations, cloudy or dull elsewhere, with rain and fog over the S. of England and N. of France. Rain general later in the day, but sky clearing over England in evening.

Temperature changes slight and irregular; readings still uniform, varying from 50° in the Shetlands, to 61° at Nottingham and 62° at Biarritz. Maxima between 55° and 65° in most places, 72° at Nottingham, and 71° in S.E. England.

Wind westerly at the majority of our own and the French stations, but backing on our western coasts to S.W.; south-easterly in the Shetlands. Wind south-westerly in the W. in evening, and strong in force.

Sea rough in the Channel as well as off Valentia and Stornoway.

Barometer high over the S.W. of France, with small depressions over Scotland. Mercury rising in Sweden, falling in all other places, quickly over Scotland. Fresh disturbance appearing in the W. later, and barometer falling everywhere.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

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2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
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	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
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	2. ENGLAND, NORTH-EAST	65	43	55	6 below.	6	11	6 more.
	3. ENGLAND, EAST	69	45	56	8 below.	6	9	4 more.
	4. MIDLAND COUNTIES	70	44	56	7 below.	6	11	5 more.
	5. ENGLAND, SOUTH	66	44	56	7 below.	6	7	3 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	68	45	54	5 below.	5	6	1 more.
	7. ENGLAND, NORTH-WEST	68	45	55	6 below.	5	7	1 less.
	8. ENGLAND, SOUTH-WEST	69	49	57	6 below.	5	6	0 (average).
	9. IRELAND, NORTH	64	48	54	6 below.	5	10	?
	10. IRELAND, SOUTH	66	46	56	5 below.	5	8	2 more.

General Remarks.

Weather again generally cloudy and showery, with scarcely any intervals of warm sunshine. Thunderstorms in many parts of England at the beginning and end of the week. Temperature again considerably below the mean, the deficit ranging from five degrees in "Scotland, W.," and "Ireland, S.," to eight degrees in "England, E.," and the "Midland Counties." Maxima usually below 65° and sometimes below 60° even at our midland and southern stations.

Rainfall varying considerably in different localities. In "England, N.W.," it was rather less than the mean, and in "England, S.W.," about the mean, but in all other districts it was more, the excess being greatest in the north-eastern districts.

Wind westerly to south-westerly at first, but veering to N.W. on the 9th, and continuing to blow from that quarter until the 11th. On the 12th south-westerly breezes once more became general, except in the north, where an easterly current appeared. Winds moderate to fresh in force generally, and blowing a gale in the west and south on the 9th.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	60	45	52·3	− 5·5	2	0·40	−0·11
	Aberdeen	60	40	52·9	− 5·5	5	0·64	+0·10
	Glenalmond	61	40	52·0	− 6·7	4	0·44	?
	Leith	66	42	54·2	− 4·3	4	2·41	+1·87
2. ENGLAND, N.E.	Shields	61	47	53·7	− 6·3	6	0·85	+0·37
	Durham	65	46	55·2	− 5·1	6	1·04	+0·50
	York	65	45	55·6	− 5·4	6	1·71	+1·20
	Spurn Head							
	Kelstern (Lincolnshire) ℳ	65	43	54·4	− 7·4	6	0·89	+0·32
3. ENGLAND, E.	Yarmouth	63	48	55·2	− 7·2	5	0·64	+0·06
	Cambridge	67	45	55·7	− 7·9	6	0·74	+0·22
	Audley End (Saffron Walden) ℳ	69	50	58·5	− 5·1	7	1·34	+0·84
	Rothamsted	61	46	54·5	− 9·8	7	0·92	+0·31
4. MIDLAND COUNTIES	Nottingham	70	46	57·1	− 5·6	5	1·37	+0·77
	Loughborough	66	46	55·7	− 6·7	5	0·91	+0·38
	Leicester	68	47	55·8	− 7·7	6	1·45	+0·87
	Shrewsbury ℳ							
	Hereford ℳ	66	44	55·9	− 6·5	6	0·64	+0·10
	Cirencester	65	44	54·6	− 8·9	6	1·33	+0·71
	Oxford	62	48	55·7	− 8·7	6	0·67	+0·13
5. ENGLAND, S.	London	64	50	57·1	− 7·2	5	0·67	+0·12
	Marlborough ℳ	66	44	55·9	− 8·1	6	0·90	+0·38
	Strathfield Turgiss ℳ	66	44	56·2	− 7·0	6	0·56	+0·07
	Dover	63	49	56·7	− 6·0	5	0·77	+0·32
	Hastings	63	46	55·6	− 6·9	6	0·72	+0·34
	Hurst Castle	63	52	56·7	− 5·7	6	0·54	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	62	45	52·9	− 4·2	2	0·25	?
	Glasgow	63	47	54·2	− 4·4	4	0·55	−0·28
	Ardrossan	62	48	54·9	− 3·6	6	0·21	−0·38
	Silloth (Cumberland)	68	46	55·5	− 4·4	5	1·11	+0·58
	Douglas (Isle of Man)	60	49	53·8	− 5·9	6	1·04	+0·54
7. ENGLAND, N.W.	Stonyhurst	63	45	54·1	− 7·2	6	0·84	−0·06
	Manchester	68	45	55·0	− 6·4	5	0·86	+0·13
	Liverpool Observatory (Bidston)	63	50	55·6	− 5·8	4	0·40	−0·45
	Holyhead	63	50	55·4	− 5·6	5	0·56	+0·20
8. ENGLAND, S.W.	Pembroke	59	51	54·9	− 7·3	3	0·44	−0·02
	Barnstaple	69	52	59·7	− 3·0	6	0·51	−0·18
	Falmouth	62	52	56·5	− 6·3	5	0·71	+0·10
	Plymouth	66	52	57·5	− 5·2	6	0·72	+0·14
	Prawle Point	62	49	53·9	− 8·3	6	0·50	?
9. IRELAND, N.	Mullaghmore	62	50	54·7	− 5·5	5	0·54	?
	Brookeborough	63	48	54·1	− 6·1	4	0·87	?
	Armagh	64	49	54·3	− 6·0	5	1·14	+0·45
	Donaghadee	61	48	53·3	− 6·3	7	1·56	?
10. IRELAND, S.	Dublin	62	49	55·2	− 5·6	6	1·10	+0·55
	Kingstown	64	51	56·4	− 4·1	5	0·88	+0·45
	Parsonstown	63	46	54·4	− 6·1	4	0·47	−0·14
	Roche's Point	66	46	55·6	− 5·4	5	0·83	+0·21
	Valentia	62	50	56·0	− 5·0	6	0·61	−0·23
SCOTLAND, N.	Sumburgh Head	59	44	50·7	− 2·9	4	0·22	−0·16
	Stornoway	57	44	51·1	− 4·4	1	0·12	−0·62
	Wick	59	46	52·1	− 3·7	5	0·33	−0·07
——	Scilly (St. Mary's)	60	51	56·0	− 6·9	3	0·55	+0·01
	Jersey (Noirmont)	61	53	56·2	− 6·6	5	0·34	−0·04

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending July 14, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, July 8.

Weather fair at a few north-eastern and north-western stations, dull generally, with rain at Wick, Rochefort, and in the W. of Ireland. Thunder occurred in the N. during the day and rain fell generally.

Temperature risen a little over France, fallen in most places, readings very uniform over these Islands. Maxima low, between 55° and 65° over the United Kingdom.

Wind westerly over Ireland, the W. of England, and the Bay of Biscay, south-westerly on most of our other coasts, but south-easterly in the E. and N. of Scotland. Strong in the W. and S. and blowing a gale in the Channel all day.

Sea rough in the W. and S. generally—high at Mullaghmore and Scilly.

Barometer highest over the Peninsula, lowest off our N.W. coast. Mercury falling everywhere—rapidly in the N.W.—where a large depression is appearing. Disturbance advancing eastward over Scotland during day.

Wednesday, July 9.

Weather cloudy or dull generally, with rain over the S. of England, as well as at Shields, Rochefort, and on the eastern shores of the North Sea. Rain occurring in most places during the day.

Temperature fallen a little in most places; readings very uniform over western Europe, varying between 50° and 60°, except over central and southern France, where they increase to about 65°. Maxima again low, only slightly exceeding 60°.

Wind north-easterly in the north of Scotland, north-westerly over Ireland and England, and westerly over France, and south-westerly in N. Germany and Denmark; fresh generally, and blowing a gale in the W. and S. Gale all day in Channel.

Sea rough to high in the W. and S.

Barometer highest over the Peninsula, with large depression over the North Sea, moving slowly eastward. Mercury falling in most places, but rising in W., and recovery spreading eastward later.

Thursday, July 10.

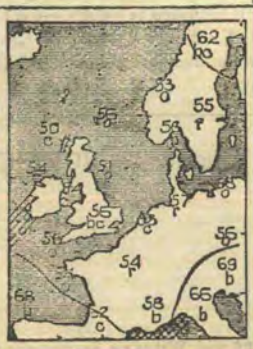
Weather overcast or very cloudy in nearly all places, but fine at a few of our north-western and north-eastern stations. Rain falling at Yarmouth and over N. Germany. Rain not so general as of late.

Temperature fallen over southern France, scarcely changed elsewhere; readings exceedingly uniform, between 50° and 60° over western Europe. Maxima again very low everywhere.

Wind northerly in the W. of Norway, northerly to north-westerly on our coasts, westerly over France and the Channel, and south-westerly in N. Germany. Still fresh in force, but gales subsided.

Sea rough at Donaghadee, Scilly, and on the French side of the Channel, high at Rochefort.

Barometer still highest over the Peninsula, with the large depression noticed yesterday over the North Sea now shown over Norway and Denmark. General rise in progress, lasting all dry.



Friday, July 11.

Weather fine at several of our southern and south-eastern stations and over the Skager Rack; cloudy to dull elsewhere, with rain in the W. of Ireland, at Paris, and Lyons. Rain falling in the W. and S. during the day.

Temperature changed little and irregularly; readings very uniform, varying from 67° at Haparanda and 63° at Biarritz to 50° in N. Scotland. Maxima between 55° and 65° at our stations.

Wind north-westerly over the greater part of western Europe, but a south-easterly breeze appearing in the S. of Ireland. Northerly wind still holding in the E. in the evening, but westerly breezes reported from the S. and W.

Sea rough off Valentia and Cape Griz Nez, moderate to smooth elsewhere.

Barometer falling somewhat in the S. of Ireland, rising elsewhere. Pressure highest over the Peninsula, and lowest over Scandinavia. Slight disturbances appearing in the W. later.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, July 12.

Weather wet and overcast in Ireland and the S.W. of England, fair on our E. coast and in S. France, cloudy in most other places. Rain falling except in the N. later.

Temperature rather higher on our E. coast and lower in the W. than on the 11th; readings still very uniform, between 50° and 60. Maxima again between 55° and 65°.

Wind north-easterly at Christiansund and in N. Scotland, southerly to south-westerly in most other places. Blowing freshly in the Channel, but light elsewhere. Westerly breeze in the S. and easterly breeze in the N. later.

Sea moderate to smooth.

Barometer risen a little over Scandinavia, fallen elsewhere—briskly in the S.W. Large shallow depression advancing from the Atlantic over our southern districts during the day.

Sunday, July 13.

Weather fine over Sweden and Denmark, and at a few of our E. coast stations, cloudy and unsettled generally, with rain in the W. and S.W. as well as at Lyons and Brussels. Heavy rain in Scotland in the evening, thunder at York and showers generally.

Temperature still changing very little; readings varying from 63° at Biarritz and 65° at Stockholm, to 50° at Ardrossan. Maximum temperatures generally between 55° and 65°, but 67° recorded at Cambridge and 70° at Nottingham.

Wind westerly in the S., southerly in the E., easterly in the N., and northerly in the W.; moderate to fresh in force. Scarcely any change later.

Sea rough in the N. and S.W.

Barometer high both over Scandinavia and over the Mediterranean, with a large but shallow depression over these Islands. Pressure increasing in Scandinavia and recovery commencing in the W. but mercury falling generally.

Monday, July 14.

Weather cloudy or dull with rain at several stations. Thunderstorms occurring in the northern districts, and heavy rain in London in the evening.

Temperature changes still slight and irregular. Readings very uniform, between 50° and 60° over western Europe. Maxima very low for season, varying from 52° to 63°, except at York where 65° was recorded.

Wind north-easterly over Norway and Scotland, northerly over Ireland, westerly over the Channel and France, and southerly in N. Germany. Moderate to fresh in force. No change later.

Sea rather rough at some of our western and northern stations.

Barometer falling in Scandinavia, rising slowly over the British Isles and France. Depression still shown over England with a small subsidiary disturbance near Denmark. Barometer rising all day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

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[48.—150.—7/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 29.] WEEK ENDING MONDAY, JULY 21, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	65	43	54	4 below.	4	10	5 more.
	2. ENGLAND, NORTH-EAST	68	45	55	6 below.	4	15	10 more.
	3. ENGLAND, EAST	74	44	58	6 below.	5	18	12 more.
	4. MIDLAND COUNTIES	74	47	59	4 below.	4	9	3 more.
	5. ENGLAND, SOUTH	73	49	60	4 below.	5	11	6 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	69	45	57	2 below.	4	12	6 more.
	7. ENGLAND, NORTH-WEST	69	48	58	4 below.	5	9	1 more.
	8. ENGLAND, SOUTH-WEST	70	51	58	5 below.	4	12	7 more.
	9. IRELAND, NORTH	68	47	56	4 below.	4	16	?
	10. IRELAND, SOUTH	69	51	58	3 below.	4	10	3 more.

General Remarks.

Weather has again been generally dull and rainy but with a short burst of fair warm weather in some places on the 17th and 18th. Heavy rain fell in nearly all parts of the kingdom on the 20th and 21st; thunder and lightning occurred in some parts of England on the 19th. Temperature again greatly below the mean, the deficit amounting to as much as six degrees over "England, N.E. and E.," and five degrees in "England, S.W." Maxima exceeding 70° were registered in many parts of England on the 18th and in some places on the 19th, but at the close of the week the highest readings at the same stations were below 60°. The lowest of the minima were observed during the early part of the week.

Rainfall considerably more than the mean, especially in "England, N.E. and E.," where continuous heavy rain fell throughout the whole of the 20th and 21st. At Yarmouth the total fall for the week amounted to as much as 3·06 ins., of which 2·68 ins. fell during Sunday and Monday.

Wind light and variable during the first few days, decided south-westerly breeze setting in on the 19th. Wind veering to W. and N.W. on the following day, and blowing fresh or strong gale at most of the western and southern stations.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	61	43	54·6	− 3·4	5	1·19	+0·63
	Aberdeen	64	45	54·1	− 4·4	4	0·97	+0·35
	Glenalmond	65	46	53·5	− 5·2	4	0·78	?
	Leith	63	47	55·0	− 3·8	4	0·94	+0·36
2. ENGLAND, N.E.	Shields	61	49	53·7	− 6·3	4	1·54	+1·02
	Durham	67	46	54·5	− 5·8	3	1·81	+1·24
	York	65	45	56·0	− 4·8	4	1·25	+0·78
	Spurn Head							
	Kelstern (Lincolnshire) ℳ	68	48	56·1	− 5·6	4	1·54	+1·07
3. ENGLAND, E.	Yarmouth	63	50	56·7	− 6·1	3	3·06	+2·50
	Cambridge	72	48	59·3	− 4·5	5	1·36	+0·84
	Audley End (Saffron Walden) ℳ	74	45	58·7	− 5·2	6	1·52	+0·99
	Rothamsted	68	44	57·3	− 7·3	4	1·22	+0·61
4. MIDLAND COUNTIES	Nottingham	74	47	60·2	− 2·6	5	0·87	+0·26
	Loughborough	72	50	58·5	− 4·1	5	0·66	+0·16
	Leicester	69	50	58·8	− 4·9	5	1·19	+0·61
	Shrewsbury ℳ							
	Hereford ℳ	71	51	59·4	− 3·4	4	0·40	−0·15
	Cirencester	73	50	59·1	− 4·6	3	1·33	+0·70
	Oxford	70	51	59·4	− 5·0	3	0·93	+0·39
5. ENGLAND, S.	London	73	52	60·3	− 4·1	4	1·00	+0·46
	Marlborough ℳ	71	49	59·1	− 5·2	4	1·36	+0·81
	Strathfield Turgiss ℳ	71	52	59·7	− 3·8	4	0·83	+0·31
	Dover	65	55	58·9	− 4·0	6	1·44	+0·99
	Hastings	69	53	59·5	− 3·3	5	1·00	+0·60
	Hurst Castle	68	52	59·6	− 3·2	4	1·05	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	65	50	57·4	− 0·1	3	0·96	?
	Glasgow	67	48	56·6	− 2·2	4	1·18	+0·31
	Ardrossan	66	49	56·5	− 2·1	5	1·17	+0·53
	Silloth (Cumberland)	69	45	57·1	− 2·9	4	0·78	+0·20
	Douglas (Isle of Man)	64	50	55·9	− 4·0	5	2·07	+1·53
7. ENGLAND, N.W.	Stonyhurst	66	50	57·4	− 4·2	5	1·16	+0·23
	Manchester	69	48	56·5	− 5·0	3	0·62	−0·13
	Liverpool Observatory (Bidston)	68	52	58·3	− 3·3	6	1·02	+0·07
	Holyhead	69	53	58·6	− 2·6	5	0·76	+0·39
8. ENGLAND, S.W.	Pembroke	70	51	57·4	− 4·9	4	0·60	+0·08
	Barnstaple							
	Falmouth	68	53	58·6	− 4·5	6	1·66	+1·05
	Plymouth	65	52	58·1	− 4·7	4	1·53	+0·87
	Prawle Point	67	51	56·7	− 4·7	3	0·90	?
9. IRELAND, N.	Mullaghmore	63	47	56 3	− 3·9	5	0·71	?
	Brookeborough	68	48	56·3	− 3·9	3	1·48	?
	Armagh	67	51	56·6	− 3·8	5	2·20	+1·47
	Donaghadee	62	49	55·4	− 4·1	4	2·16	?
10. IRELAND, S.	Dublin	65	51	57·8	− 3·1	4	0·89	+0·36
	Kingstown							
	Parsonstown							
	Roche's Point	69	52	59·0	− 2·1	4	1·43	+0·79
	Valentia	64	51	57·0	− 4·1	4	0·63	−0·25
SCOTLAND, N.	Sumburgh Head	57	42	50·8	− 3·0	3	0·60	+0·32
	Stornoway	60	46	53·0	− 2·7	3	0·28	−0·45
	Wick	65	46	54·0	− 2·0	3	0·66	+0·27
——	Scilly (St. Mary's)	64	54	57·3	− 5·9	3	0·55	+0·02
	Jersey (Noirmont)	64	50	57·6	− 5·2	4	0·40	−0·02

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending July 21, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, July 15.

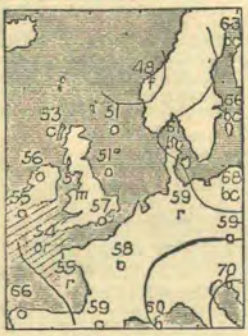
Weather locally fine in a few places, but generally cloudy or dull, with some mist and rain in different parts of the country. Scarcely any rain over the British Isles during day,—except at Liverpool.

Temperature a little higher in most places; exceeding 60° over Sweden, N. Germany, and the extreme S. of France, uniform between 50° and 60° elsewhere. Maxima between 55° and 65° in our Islands generally.

Wind northerly in the W. of Norway, and on most of our coasts, westerly over France and south-westerly over the Netherlands, with an easterly breeze over the S. of Sweden and the Skager Rack. Southerly breeze appearing in W. Ireland later.

Sea high at Rochefort and Toulon, moderate to smooth elsewhere.

Barometer falling over the countries lying to the eastward of the North Sea, rising elsewhere. Readings highest over the N. of Spain, lowest over Denmark. Slight fall commencing in the W. of Ireland later.



Wednesday, July 16.

Weather dull and wet on our S.W. coasts and in W. France, cloudy generally, but locally fair in some places. Rain in south-western and central districts later, sharp showers in S.E.

Temperature changing little and irregularly; still low, readings varying from 51° to 58° in these Islands. Maxima between 55° and 65° at most of our stations, but thermometer reaching 69° in London and 82° at Biarritz.

Wind northerly to N.W. over the more eastern parts of our area, and southerly to south-easterly in the W.; fresh in force in the S.W. and reaching a hard gale at Scilly. Wind veering a little in W. later, but general direction not changing much.

Sea rough in the S.W.

Barometer highest over central France, with a large area of low pressure over southern Sweden, and a new depression advancing to our S.W. coasts. Barometer falling briskly S.W., rising elsewhere. Depression scarcely moving during day.

Thursday, July 17.

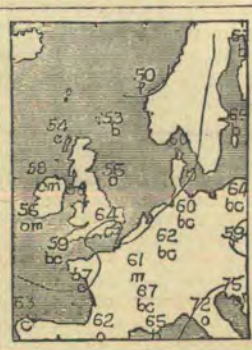
Weather fine in many parts of Scandinavia and Denmark, cloudy or dull over these Islands and France, with mist or fog in many places. A little rain in a few places during the day.

Temperature a little higher in most places; readings ranging from 49° at Christiansund to 60° in London and 71° at at Toulon. Maxima higher than of late, varying generally from 69° to 65°.

Wind very light in force; south-easterly in the S.E., easterly in the N., northerly in the W., and westerly to south-westerly over France. Light variable breezes all day.

Sea moderate to calm.

Barometer falling somewhat over southern England and N. France, rising slowly elsewhere. Pressure lowest over our S.W. coasts, and trough of low readings forming over the Channel during the day, but mercury rising generally.



Friday, July 18.

Weather fine over Sweden, Denmark, the E. of France, and locally fair at a few of our stations but cloudy in most places. Weather moderately fair during day generally, but rain in the W. at night.

Temperature fallen a little in the W. and S. of France, risen slightly in most other places, readings varying from 53° in the Shetlands to 64° in London and 67° at Toulon. Maxima exceeding 70° over central England.

Wind very light and varying considerably in direction; generally northerly over these Islands and westerly over France. Wind light and variable all day but a southerly breeze appearing in the S.W. later.

Sea nearly smooth.

Barometer rising slowly in all parts of western Europe, and readings exceedingly uniform over these Islands and their neighbourhood. Large shallow depression appearing in the W. later and barometer falling.

(*Continued over.*)

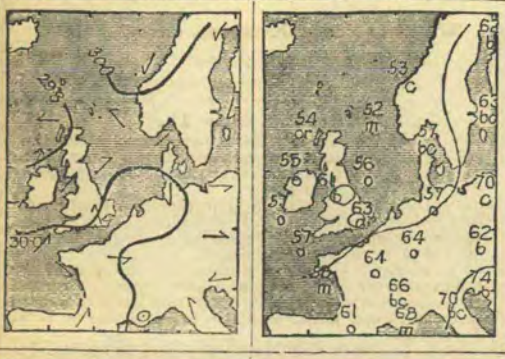
(*Continued.*)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, July 19.

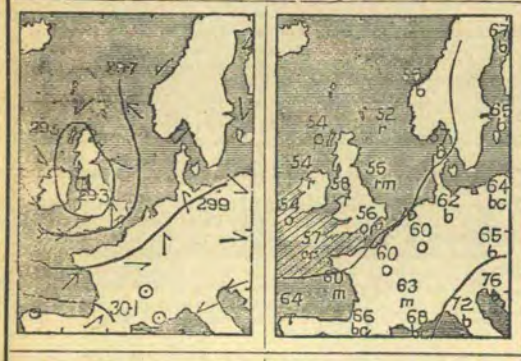
Weather fair at some south-eastern stations, but cloudy or dull elsewhere with rain, mist, and fog in the W. and N. Rain falling generally later, heavily over the southern and central districts.

Temperature changes slight and irregular; readings varying from 52° in the Shetlands to 63° in London and 68° at Toulon. Maxima higher than of late, thermometer rising to 73° in London and 72° at Nottingham and Cambridge.

Wind light on all coasts, south-westerly to southerly over these Islands, and north-westerly over France; south-westerly breezes all day increasing somewhat in force towards evening.

Sea slight to smooth.

Barometer rising a little in France and Norway, falling elsewhere. Large depression advancing towards our western coasts and mercury falling all day.



Sunday, July 20.

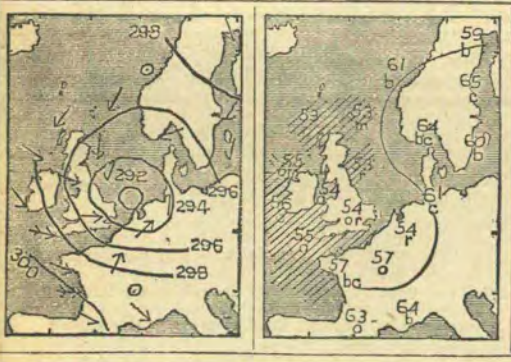
Weather very unsettled, dull, rainy, and foggy over these Islands and their neighbourhood, but fine in Sweden and Denmark. Heavy rain falling during the day.

Temperature changes slight and irregular; readings exceedingly uniform over western Europe, ranging from 52° in the Shetlands to 68° at Toulon and 66° at Hernösand. Maxima between 55° and 65° generally.

Wind north-westerly in Ireland, westerly in the S.W., southerly in the E., and easterly in the N.; blowing strongly or with the force of a moderate gale in the S. Fresh to strong gales in the W. and S. all day.

Sea rough W. and S.

Barometer highest over N. Spain, with a well marked and rather deep depression passing eastward across the British Isles. Mercury falling quickly at 8 A.M., but recovery taking place in W. later and depression passing on to North Sea.



Monday, July 21.

Weather still very unsettled. Sky clear over southern and central France and in parts of Scandinavia; cloudy or dull and squally over these Islands, with rain in many places. Heavy rain except in the S.W. later.

Temperature risen a little in N.W., fallen elsewhere. Readings high over Scandinavia and moderately high over southern France, low over these Islands. Maxima very low, only slightly exceeding 60°.

Wind northerly over Scotland, north-westerly on our coasts, and westerly to south-westerly over France; strong generally and still blowing a gale in the N.W. and S.W. Gale in the Channel all day.

Sea rough to high except on our E. coast.

Barometer rising all over the British Isles and W. France, falling quickly over N. Germany and slightly over Scandinavia. Area of high readings stretching from our S.W. coasts to N. Spain; the depression shown over Holland. Barometer rising all day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[48.—150.—7/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 30.] WEEK ENDING MONDAY, JULY 28, 1879. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.)				Rainfall. (Amounts in tenths of an inch.)		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	71	44	57	1 below.	4	2	4 less.
	2. ENGLAND, NORTH-EAST	75	45	57	4 below.	4	2	3 less.
	3. ENGLAND, EAST	75	46	59	5 below.	4	2	3 less.
	4. MIDLAND COUNTIES	79	46	59	4 below.	3	2	4 less.
	5. ENGLAND, SOUTH	75	45	59	5 below.	2	less than ½	5 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	72	44	57	2 below.	6	9	1 more.
	7. ENGLAND, NORTH-WEST	73	49	57	5 below.	5	5	3 less.
	8. ENGLAND, SOUTH-WEST	70	50	58	4 below.	4	3	4 less.
	9. IRELAND, NORTH	66	45	57	4 below.	6	11	?
	10. IRELAND, SOUTH	74	45	58	3 below.	4	8	2 more.

General Remarks.

Weather remaining dull, cool, and unsettled at commencement of week, especially in "England, N.E. and E.," but improving considerably later, and becoming warm and seasonable by the close of the period. Temperature below the mean, but deficit not quite so large as in previous weeks. Maxima at commencement of week very low for the time of year, especially in "England, N.E.," but thermometer subsequently rising quickly and reaching 75° in many parts of England and 79° at Nottingham on the 28th.

Rainfall a little more than the mean in "Scotland, W.," and over Ireland, but less in all other districts, especially "England, S." In "Ireland, N.," six days out of the seven were rainy.

Wind northerly to north-westerly at the commencement of the week, but backing to W. on the 24th and to the southward subsequently. Strong at first, but afterwards light or moderate in force.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature. Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	Rainfall. No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	67	48	57·8	− 0·2	2	0·38	−0·22
	Aberdeen	71	46	56·6	− 1·8	5	0·18	−0·47
	Glenalmond	69	44	56·2	− 2·3	4	0·15	?
	Leith	71	50	58·6	− 0·1	4	0·15	−0·45
2. ENGLAND, N.E.	Shields	72	50	56·8	− 2·9	6	0·27	−0·26
	Durham	73	45	56·7	− 3·6	5	0·30	−0·27
	York	75	46	57·4	− 3·3	3	0·18	−0·30
	Spurn Head							
	Kelstern (Lincolnshire) ℳ	75	46	56·9	− 4·6	3	0·22	−0·27
3. ENGLAND, E.	Yarmouth	72	49	57·8	− 5·1	3	0·50	−0·03
	Cambridge	75	46	59·6	− 4·2	3	0·13	−0·39
	Audley End (Saffron Walden) ℳ	74	48	59·5	− 4·4	3	0·09	−0·43
	Rothamsted	72	47	58·2	− 6·6	5	0·15	−0·45
4. MIDLAND COUNTIES	Nottingham	79	46	60·5	− 2·2	2	0·13	−0·50
	Loughborough	76	46	59·1	− 3·4	3	0·10	−0·38
	Leicester	74	48	58·5	− 5·1	4	0·14	−0·45
	Shrewsbury ℳ							
	Hereford ℳ	72	47	59·3	− 3·7	2	0·32	−0·21
	Cirencester	75	46	58·6	− 5·0	2	0·15	−0·50
	Oxford	74	49	59·7	− 4·5	2	0·08	−0·46
5. ENGLAND, S.	London	75	47	59·9	− 4·5	3	0·03	−0·49
	Marlborough ℳ	75	47	59·3	− 5·2	2	0·09	−0·47
	Strathfield Turgiss ℳ	73	45	58·7	− 5·1	1	0·01	−0·49
	Dover	67	53	59·1	− 3·9	1	0·04	−0·42
	Hastings	64	50	57·2	− 5·8	2	0·03	−0·37
	Hurst Castle	64	52	58·3	− 4·9	3	0·04	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	65	44	56·1	− 1·7	5	1·10	?
	Glasgow	72	48	57·7	− 1·1	6	0·92	+0·03
	Ardrossan	61	50	55·9	− 2·7	6	0·86	+0·16
	Silloth (Cumberland)	66	51	58·5	− 1·5	6	0·53	−0·07
	Douglas (Isle of Man)	63	49	55·8	− 4·1	5	0·94	+0·34
7. ENGLAND, N.W.	Stonyhurst	63	50	55·5	− 6·3	5	1·08	+0·11
	Manchester	73	49	57·1	− 4·2	4	0·27	−0·48
	Liverpool Observatory (Bidston)	73	51	58·0	− 3·8	4	0·35	−0·54
	Holyhead	64	51	57·6	− 3·6	5	0·30	−0·10
8. ENGLAND, S.W.	Pembroke	61	52	56·8	− 5·3	3	0·24	−0·30
	Barnstaple	70	53	60·1	− 2·8	4	0·30	−0·46
	Falmouth	68	53	59·0	− 4·0	5	0·23	−0·39
	Plymouth	70	51	59·9	− 2·8	3	0·24	−0·43
	Prawle Point	65	50	56·4	− 6·2	4	0·31	?
9. IRELAND, N.	Mullaghmore	64	50	56·4	− 3·7	6	1·73	?
	Brookeborough	66	45	56·4	− 3·8	6	0·83	?
	Armagh	63	48	56·9	− 3·4	6	0·69	−0·01
	Donaghadee	66	48	56·4	− 3·2	6	0·98	?
10. IRELAND, S.	Dublin	74	48	59·8	− 1·0	4	0·36	−0·17
	Kingstown	74	49	59·5	− 0·9	4	0·30	−0·17
	Parsonstown	66	45	57·6	− 3·1	5	0·88	+0·18
	Roche's Point	67	47	57·7	− 3·4	4	1·56	+0·88
	Valentia	64	46	55·9	− 5·2	5	1·08	+0·18
SCOTLAND, N.	Sumburgh Head	61	44	52·2	− 1·8	5	0·13	−0·17
	Stornoway	60	48	53·4	− 2·4	4	0·30	−0·46
	Wick	69	47	55·0	− 0·8	6	0·65	+0·24
——	Scilly (St. Mary's)	66	53	58·7	− 4·3	3	0·07	−0·45
	Jersey (Noirmont)	69	50	57·9	− 4·9	3	0·17	−0·27

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending July 28, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, July 22.

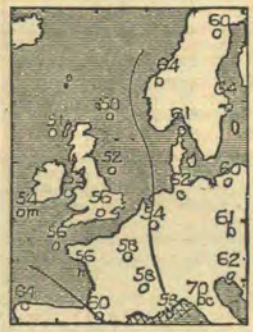
Weather fair at some of the Swedish stations and at Toulon, cloudy or dull elsewhere, with rain on the E. coast of England and showers in London. Slight rain in the S.E. and N.E. during the day.

Temperature changes exceedingly slight; 8 A.M. readings exceeding 60° over Scandinavia, but uniform between 51° and 57° over these Islands. Maxima generally about, or a little above, 60° over these Islands.

Wind northerly on our coasts, north-westerly in W. France, south-westerly in the E. of that country, southerly in N. Germany, and easterly in Denmark. Strong over these Islands and blowing a gale in W. France. Wind falling lighter later.

Sea rough at most of the northern, western, and southern ports, high at Jersey and Rochefort.

Barometer highest to the westward of Ireland, and a well marked depression over Holland. Disturbance moving eastward later and barometer rising.



Wednesday, July 23.

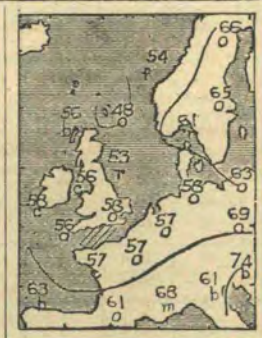
Weather fine in some parts of Scandinavia and Denmark, and on the S. coast of England, but dull generally. Day showery, but improving considerably in evening, except in the W.

Temperature hardly changed over France but fallen a little in most other places. Readings still low and uniform between 50° and 60° over the British Isles and France. Maxima between 60° and 65° generally, but reaching 70° in S.E. England.

Wind northerly to north-westerly on most of our own and the French coasts, but a south-easterly breeze appearing at Valentia; light or moderate in force. Southerly breeze extending eastward to our other western stations later.

Sea moderate to smooth.

Barometer highest over France, low off our N.W. coasts and over Sweden; fallen a little over the Baltic, risen elsewhere, but slight fall commencing at Valentia and spreading to nearly all our coasts during the day.



Thursday, July 24.

Weather fine at several western stations and in the extreme S.E. of England; dull elsewhere, with rain in the N.E. Fine over eastern and central England all day, but some showers of rain falling in Scotland.

Temperature risen a little at our stations, fallen on the eastern shores of the North Sea, scarcely changed elsewhere; exceeding 60° over Norway, Sweden, and S. France, but between 50° and 60° in other parts.

Wind westerly over these Islands and the Channel, north-westerly on the eastern shores of the North Sea, and south-easterly in S.W. France; moderate generally, but strong in N. Germany. Increasing in the N.W. later.

Sea rough off Hurst Castle, moderate to smooth elsewhere.

Barometer high and uniform over France and the Channel, with well marked disturbance over Sweden. Mercury risen a little in the S., fallen in the N. Little change during day.

Friday, July 25.

Weather fine and bright in the E. of Scotland, the E. and S.E. of England, the Netherlands, and S. France, cloudy elsewhere. Fine all day in the E. and no rain falling over eastern England.

Temperature risen a little generally, varying between 55° and 60° over these Islands and rising to 65° in S. France and 68° in Lapland. Maxima between 60° and 65° generally.

Wind westerly on our coasts, over the Channel, and N. Germany, but drawing into S.W. in Norway and into N. over eastern France; moderate in force except in N. Germany. Wind backing in the W. in the afternoon but veering again in evening.

Sea moderate to smooth.

Barometer rising over England, N. France, and the eastern shores of the North Sea, but falling over Ireland, Scotland, and the S. of France. Area of high pressure in the S., much smaller covering the N. of France and the Channel. Pressure changing little during day.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, July 26.

Weather again moderately clear in the E. of Scotland and extreme S.E. of England, cloudy or dull generally, with rain in several places. Slight rain in most districts during day.

Temperature rather lower, except over France, than on 25th; readings again between 50° and 60° over these Islands and between 60° and 65° over Sweden and S. France. Maxima ranging from 60° to 65°.

Wind moderate from the eastward over the Bay of Biscay, from S. on our western and northern coasts, and very light from W. in the E. Veering to W. in Ireland during day.

Sea nearly smooth.

Barometer falling over the United Kingdom and France, rising over Scandinavia. High and uniform area lying over France and our S. coast, with readings low off our N.W. coasts and over the Baltic. Little change of importance later.

Sunday, July 27.

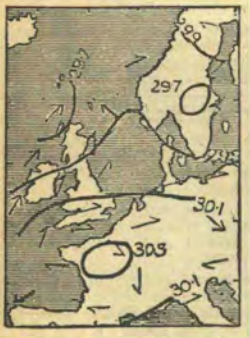
Weather very fine over the eastern and central half of the British Isles, but more or less cloudy at most of the continental stations and in Ireland. Rain commencing at Valentia. Slight rain in W. during day.

Temperature a little lower over Scotland and the S. of Scandinavia than on the 26th, higher elsewhere; readings ranging from 54° at Mullaghmore to 66° at Nottingham. Maxima slightly exceeding 70° at the central stations.

Wind light from the westward generally, but backing to S. in the W. of Ireland. Wind backing towards S.W. in most places later.

Sea slight to smooth, except at Valentia.

Barometer highest over the Bay of Biscay, lowest over the Baltic, but with depression advancing towards W. Ireland. Barometer falling Valentia, but rising elsewhere. Fall slowly spreading eastward later.



Monday, July 28.

Weather fine over France and the countries to the eastward of the North Sea, but cloudy over these Islands, with rain in the N.W. Slight rain occurring in the N. and W. later.

Temperature rather higher in most places than on 27th, ranging over these Islands from 53° at Wick to 65° at Nottingham. Maxima between 70° and 75° at most of the inland stations, and as high as 79° at Nottingham.

Wind easterly over southern France, south-westerly on our coasts, and westerly on the eastern shores of the North Sea; fresh in force in the extreme W., moderate or light elsewhere. Little change during day.

Sea rough off Valentia and Stornoway, slight elsewhere.

Barometer highest in the S., lowest to the north-westward of Scotland. Rising in the E. and S., but falling in the W. and N. Recovery taking place in the W. later.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; → = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—8/79.]

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3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	73	41	56	2 below.	4	12	4 more.
	2. ENGLAND, NORTH-EAST	76	42	60	0 (average).	4	7	1 more.
	3. ENGLAND, EAST	80	46	64	0 (average).	4	26	21 more.
	4. MIDLAND COUNTIES	82	45	63	0 (average).	4	14	8 more.
	5. ENGLAND, SOUTH	80	50	63	0 (average).	4	7	1 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	72	43	57	2 below.	4	14	5 more.
	7. ENGLAND, NORTH-WEST	73	43	59	2 below.	5	12	5 more.
	8. ENGLAND, SOUTH-WEST	80	52	60	3 below.	5	15	11 more.
	9. IRELAND, NORTH	? 84	47	57	3 below.	5	7	2 less.
	10. IRELAND, SOUTH	70	40	57	4 below.	6	8	1 more.

General Remarks.

Weather during this period has undergone a very decided change, the fine clear weather of the first few days having broken up entirely. In the first part of the week temperature was high, the maxima varying from 80° to 82° over our southern, midland, and eastern districts, and to 84° at Brookeborough (Ireland, N.); after that the thermometer fell, and the consequence is that the averages for the week agree with the means in all but our western and northern counties, where they are from 2° to 4° below.

Rainfall more than the average, except in "Ireland, N." The excess is much greater over the southern and eastern districts of England, where the very severe thunderstorm of Saturday night and Sunday morning burst with its greatest violence. Over our eastern districts the fall in a few hours varied from half an inch to three inches and a quarter.

Wind was at first south-easterly in the south, southerly in the west and north, and calm over England. It has since been extremely variable from S.E. to S.W. and N.W., and on Saturday night blew strong from E. in the southern and eastern districts.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	70	43	56·6	− 1·4	5	1·07	+0·45
	Aberdeen	70	44	56·7	− 1·5	4	0·96	+0·28
	Glenalmond	66	41	53·7	− 4·6	3	1·54	?
	Leith	73	47	58·7	0·0	3	1·17	+0·57
2. ENGLAND, N.E.	Shields	74	49	59·4	− 0·1	5	0·78	+0·24
	Durham	75	46	60·6	+ 0·2	4	0·67	+0·11
	York	75	46	61·9	+ 1·2	3	0·41	−0·09
	Spurn Head							
	Kelstern (Lincolnshire) ℳ	76	42	59·7	− 1·6	2	0·82	+0·32
3. ENGLAND, E.	Yarmouth	70	53	63·1	+ 0·4	5	2·61	+2·12
	Cambridge	80	50	64·5	+ 1·0	3	3·59	+3·11
	Audley End (Saffron Walden) ℳ	79	46	64·4	+ 0·8	3	0·84	+0·36
	Rothamsted	77	49	62·7	− 1·9	5	3·23	+2·64
4. MIDLAND COUNTIES	Nottingham	82	45	64·0	+ 1·4	4	1·20	+0·57
	Loughborough	78	45	62·6	+ 0·3	4	1·39	+0·93
	Leicester	76	47	62·2	− 1·1	4	1·79	+1·19
	Shrewsbury ℳ							
	Hereford ℳ							
	Cirencester	76	50	62·1	− 1·4	4	1·09	+0·44
	Oxford	75	? 52	63·3	− 0·6	4	1·55	+1·02
5. ENGLAND, S.	London	80	52	65·5	+ 1·3	4	0·40	−0·08
	Marlborough ℳ	78	50	63·2	− 1·3	3	1·45	+0·88
	Strathfield Turgiss ℳ							
	Dover	70	56	62·7	− 0·3	3	0·34	−0·12
	Hastings	74	53	62·4	− 0·6	3	0·08	−0·32
	Hurst Castle	72	53	62·1	− 1·3	4	1·02	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	68	43	55·1	− 2·6	5	1·94	?
	Glasgow	67	46	56·3	− 2·4	3	1·32	−0·42
	Ardrossan	62	48	56·6	− 1·9	4	1·47	+0·71
	Silloth (Cumberland)	72	50	60·0	+ 0·3	5	1·38	+0·75
	Douglas (Isle of Man)	63	46	56·3	− 3·5	3	0·69	+0·02
7. ENGLAND, N.W.	Stonyhurst	70	47	58·0	− 3·7	6	1·10	+0·09
	Manchester	71	43	59·2	− 2·1	6	0·95	+0·21
	Liverpool Observatory (Bidston)	73	52	60·2	− 1·3	3	0·67	−0·12
	Holyhead	68	53	59·0	− 2·2	5	2·16	+1·72
8. ENGLAND, S.W.	Pembroke	64	52	57·8	− 4·0	6	2·80	+2·25
	Barnstaple	80	58	60·5	− 2·3	6	1·19	+0·41
	Falmouth	66	55	59·8	− 3·2	5	1·74	+1·11
	Plymouth	74	55	61·7	− 1·0	5	1·15	+0·51
	Prawle Point	69	53	58·6	− 3·9	5	0·74	?
9. IRELAND, N.	Mullaghmore	65	48	56 7	− 3·2	4	0·47	?
	Brookeborough	? 84	41	57·0	− 3·2	4	0·82	?
	Armagh	68	47	56·6	− 3·6	6	0·53	−0·15
	Donaghadee	64	50	56·2	− 3·4	5	1·01	?
10. IRELAND, S.	Dublin	69	47	58·0	− 2·7	6	0·69	+0·15
	Kingstown	67	49	57·6	− 2·6	6	0·79	+0·29
	Parsonstown	68	40	59·9	− 0·6	6	0·50	−0·25
	Roche's Point	70	49	58·2	− 2·8	6	1·38	+0·67
	Valentia	67	46	56·2	− 4·8	5	0·61	−0·29
SCOTLAND, N.	Sumburgh Head	62	45	53·5	− 0·5	5	0·94	+0·56
	Stornoway	58	43	52·7	− 3·0	5	1·35	+0·56
	Wick	64	40	55·2	− 0·6	4	0·54	+0·08
——	Scilly (St. Mary's)	64	55	59·0	− 3·9	6	1·96	+1·46
	Jersey (Noirmont)	78	55	62·9	0·0	3	0·12	−0·36

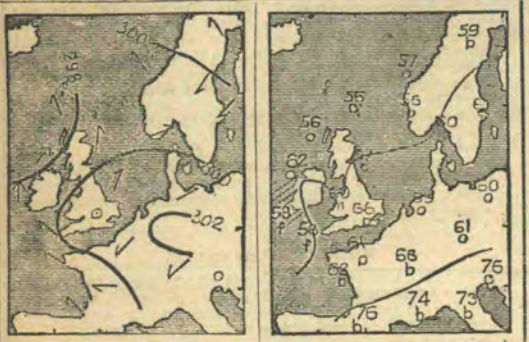
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending August 4, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, July 29.

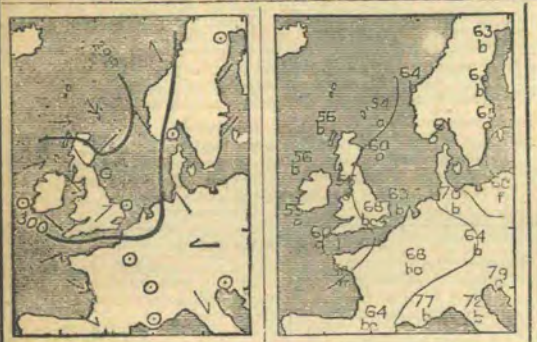
Weather very fine over France, the S.E. and E. of England, and at Fanö and Oxö; dull on our western and northern coasts, and rainy in Sweden. Rain in the W. and N. during the day.

Temperature risen several degrees at Biarritz and slightly in most places, readings ranging from 56° in N. Scotland to 66° in London and 76° at Biarritz. Thermometer rising to 82° at Nottingham and 80° in London in the afternoon.

Wind light and variable in the S.E., but easterly over France, southerly on our western and northern coasts, and westerly in Denmark; strong in W. Ireland, light or moderate elsewhere. Southerly breeze spreading eastwards later.

Sea rather rough off Valentia, moderate to smooth elsewhere.

Barometer highest over the Netherlands, with large depression advancing towards our W. coasts. Mercury rising over Scandinavia, falling elsewhere. Slight recovery at Valentia in the evening.



Wednesday, July 30.

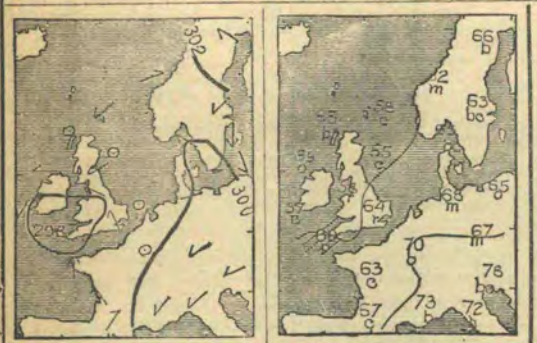
Weather fine over the greater part of western Europe, though cloudy or dull in a few places. Rain commencing at night over the more southern and south-western stations.

Temperature fallen several degrees over the W. of France and slightly on our western coasts, risen a little elsewhere. Readings ranging from 54° in the Shetlands to 72° at Nottingham. Maxima again 82° at Nottingham and 80° in London.

Wind north-westerly at our western stations, westerly on our other coasts and over France, south-easterly on the eastern shores of the North Sea; blowing freshly at Mullaghmore and Stornoway. Light variable airs later.

Sea moderate to slight.

Barometer high over Sweden and France, with small depressions passing from W. to E. across these Islands. Readings lowest to the northward of Scotland, but uniform over the British Isles all day.



Thursday, July 31.

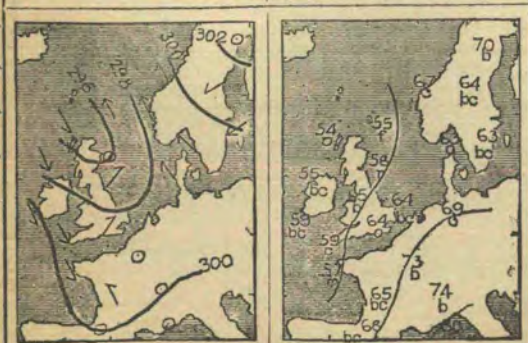
Weather rainy over the southern half of England, as well as at Lorient, Brest, and Cork; fair to cloudy elsewhere. Rain falling over the whole of these Islands and their neighbourhood later.

Temperature risen slightly over France, fallen elsewhere; readings ranging from 53° at Nairn to 64° in London and 73° at Toulon. Maxima between 66° and 70° generally.

Wind southerly over France and England, easterly over Scotland and Ireland; strong in force over Scilly and the Bristol Channel, light or moderate elsewhere. Wind veering to N. in Ireland but not changing much on our other coasts.

Sea moderate to slight, except at Scilly.

Barometer high over central Europe and the N. of Sweden, with a large but shallow depression over our south-western stations. Barometer falling, except in Sweden. Depression moving northward to our N.W. coasts later.



Friday, August 1.

Weather fine over Ireland, Wales, and in some parts of France, cloudy or dull over Great Britain, with rain in N. Scotland. Slight rain in extreme N. later, but weather dry generally.

Temperature changes slight and irregular; readings varying from 54° in Scotland, to 66° at Nottingham and 80° in London. Maxima between 70° and 75° over Central England.

Wind westerly on our western coasts, south-westerly on our eastern, and south-easterly on the eastern shores of the North Sea; variable breezes over France. Westerly to north-westerly breezes during the day, fresh in force in the N.

Sea rough at Hurst Castle, Mullaghmore, and Sumburgh Head, moderate to slight elsewhere.

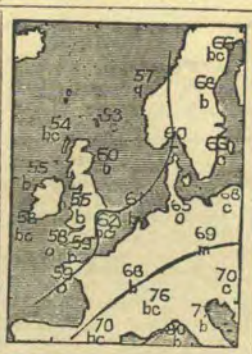
Barometer high off our S.W. coasts and over the N. of Sweden, with a well marked depression over N. Scotland. Mercury recovering in the S.W., falling elsewhere. Recovery extending eastward later.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.



Saturday, August 2.

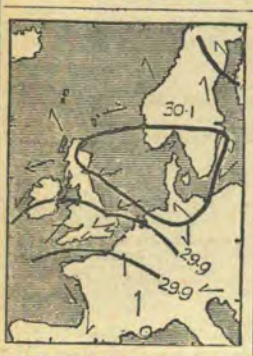
Weather exceedingly fine generally, but locally overcast at a few stations, with rain at Christiansund and Skagen. Fair generally during day, but rain setting in with thunder at night,—excessively heavy over eastern counties.

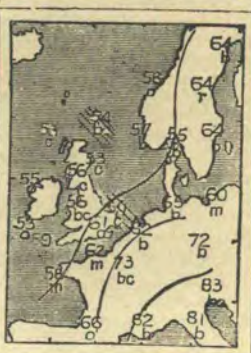
Temperature lower than on 1st, except in the W. of France; ranging from 54° in the Hebrides, to 64° at Dover and to 80° at Toulon. Maxima slightly exceeding 70° over the central and eastern districts, between 65° and 70° elsewhere.

Wind westerly on our northern coasts, calm at our central stations, easterly on our southern coasts and over France. Easterly breeze extending northward over us later, and increasing in force over the Channel, and blowing a gale at Scilly.

Sea rough off the Hebrides and Shetlands, moderate to smooth elsewhere.

Barometer highest over Ireland and England, with areas of low pressure to the northward of Scotland and over the Bay of Biscay. Mercury rising generally, but falling briskly in W. France, and decrease spreading northward to England later.





Sunday, August 3.

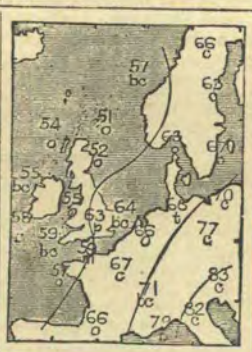
Weather fine on the eastern shores of the North Sea and at some Scotch stations; cloudy or dull generally, with mist and fog in the Channel. Thunderstorms at several stations, and rain in most places later, but not heavily.

Temperature fallen except in Belgium and the N.E. of France; readings varying from 51° at Nairn and 61° in London to 82° at Toulon. Maxima a little over 70° in the S.E. of England, between 60° and 65° in most other places.

Wind easterly over these Islands and the North Sea, westerly over France. Easterly wind fresh in places, but shifting suddenly to S.W. over southern England later.

Sea moderate to slight except at Yarmouth.

Barometer high over the North Sea and in S. France, with a band of low pressure (having three or four minima) lying over S. of England and the Channel. Band moving northward during day, and barometer rising in S.



Monday, August 4.

Weather fine at a few of our western stations and in parts of France; cloudy generally, with rain in S. Scotland and in Holland; thunder in Denmark. Rain in the W. and N. later, but weather very fine in the S.E.

Temperature higher than on the 3rd in the W., lower elsewhere; readings ranging from 52° at Aberdeen, to 64° at Yarmouth and 79° at Toulon. Maxima lower than of late, reaching only 70° at Cambridge, Yarmouth, and Nottingham.

Wind westerly at most of our stations, but backing to S. at Valentia with an easterly breeze over N. Scotland. Wind backing to S.W. at most of our more western stations during the day.

Sea rough at Valentia, slight to smooth elsewhere.

Barometer high over France and Sweden, with an area of low pressure over the N. of the British Isles and the North Sea. Mercury rising in the S., falling in the N. Slight fall occurring in the S.W. in the evening, but barometer rising elsewhere.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 32.] WEEK ENDING MONDAY, AUGUST 11, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	67	42	56	3 below.	5	12	5 more.
	2. ENGLAND, NORTH-EAST	76	42	56	5 below.	3	7	2 more.
	3. ENGLAND, EAST	77	49	59	5 below.	3	1	3 less.
	4. MIDLAND COUNTIES	81	39	58	4 below.	2	4	2 less.
	5. ENGLAND, SOUTH	74	44	60	4 below.	4	4	1 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	68	40	56	3 below.	3	13	8 more.
	7. ENGLAND, NORTH-WEST	74	40	56	5 below.	3	16	9 more.
	8. ENGLAND, SOUTH-WEST	70	51	58	4 below.	5	8	2 more.
	9. IRELAND, NORTH	72	43	55	4 below.	4	4	?
	10. IRELAND, SOUTH	74	42	58	3 below.	5	12	4 more.

General Remarks.

Weather has again been dull, changeable, and wet. Between Tuesday and Friday a well-formed depression passed slowly over the Kingdom in a north-easterly direction, and on Saturday was passing away over Norway.

Temperature everywhere below the mean, the deficit varying from 3° in Scotland to 5° in England N. and E., and 4° elsewhere. The maxima were nearly all below 80°, the only station at which a higher reading was recorded being Nottingham. The minima were as low as 40° in our north-western counties and on one occasion the grass temperature fell to 39° even in London.

Rainfall more than the mean in the western and northern districts, rather less than the mean over the midland, southern, and eastern counties of England. The bulk of the rain fell with the depression referred to above, but after its disappearance the weather cleared considerably.

Wind has been very variable both in direction and force, but has not reached the force of a gale in any district.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	64	47	53·9	− 3·9	5	1·63	+0·98
	Aberdeen	65	46	56·0	− 1·9	5	1·26	+0·56
	Glenalmond	68	42	54·9	− 3·1	2	1·14	?
	Leith	69	49	57·7	− 1·1	6	0·56	−0·02
2. ENGLAND, N.E.	Shields	65	48	55·7	− 3·3	4	0·47	−0·09
	Durham	76	43	56·0	− 4·5	3	1·33	+0·77
	York	75	42	55·7	− 4·8	3	0·46	−0·06
	Spurn Head							
	Kelstern (Lincolnshire) ℳ	72	42	55·3	− 5·7	3	0·40	−0·10
3. ENGLAND, E.	Yarmouth	66	49	57·7	− 4·4	3	0·17	−0·25
	Cambridge	76	46	59·4	− 3·7	3	0·16	−0·27
	Audley End (Saffron Walden) ℳ	76	42	58·7	− 4·3	2	0·15	−0·25
	Rothamsted	77	44	58·6	− 5·4	3	0·11	−0·42
4. MIDLAND COUNTIES	Nottingham	81	42	60·1	− 2·0	3	0·69	+0·07
	Loughborough	78	42	58·3	− 3·2	3	0·25	−0·21
	Leicester	73	44	56·8	− 6·0	3	0·28	−0·41
	Shrewsbury ℳ	73	39	55·9	− 5·8	2	0·65	−0·03
	Hereford ℳ							
	Cirencester	73	44	58·2	− 5·0	2	0·27	−0·38
	Oxford	71	48	59·4	− 4·1	1	0·38	−0·11
5. ENGLAND, S.	London	74	46	60·2	− 3·7	3	0·54	+0·09
	Marlborough ℳ	71	44	59·2	− 4·8	2	0·40	−0·16
	Strathfield Turgiss ℳ							
	Dover	67	53	59·7	− 3·1	4	0·19	−0·27
	Hastings	68	52	59·3	− 3·7	5	0·41	+0·01
	Hurst Castle	66	53	59·5	− 3·9	5	0·40	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	67	45	56·8	− 0·7	2	0·28	?
	Glasgow	68	43	55·5	− 3·2	3	1·47	+0·57
	Ardrossan	66	42	54·5	− 6·1	2	1·35	+0·53
	Silloth (Cumberland)	75	40	57·0	− 2·4	2	0·82	+0·16
	Douglas (Isle of Man)	67	42	54·5	− 5·0	4	2·52	+1·79
7. ENGLAND, N.W.	Stonyhurst	72	45	55·0	− 6·2	3	2·01	+0·99
	Manchester	72	40	54·2	− 6·8	3	2·29	+1·59
	Liverpool Observatory (Bidston)	74	50	56·9	− 4·3	3	1·37	+0·72
	Holyhead	73	49	57·5	− 3·6	3	0·90	+0·40
8. ENGLAND, S.W.	Pembroke	67	51	57·0	− 4·5	2	0·48	−0·09
	Barnstaple							
	Falmouth	65	53	58·9	− 4·1	6	1·01	+0·38
	Plymouth	70	53	59·9	− 2·7	7	0·90	−0·28
	Prawle Point	69	52	57·5	− 4·8	6	0·60	?
9. IRELAND, N.	Mullaghmore	72	48	56 8	− 2·5	4	0·18	?
	Brookeborough	76	43	55·6	− 4·4	4	0·66	?
	Armagh	72	45	55·5	− 4·1	4	0·13	−0·54
	Donaghadee	61	44	53·1	− 6·2	3	0·74	?
10. IRELAND, S.	Dublin	72	47	56·6	− 3·6	3	1·79	+1·23
	Kingstown	70	47	57·1	− 2·9	3	0·85	+0·32
	Parsonstown	74	42	57·3	− 2·7	5	0·82	+0·04
	Roche's Point	69	53	59·9	− 0·9	7	1·40	+0·67
	Valentia	66	48	57·6	− 3·2	5	0·87	−0·03
SCOTLAND, N.	Sumburgh Head	59	47	52·4	− 1·8	6	1·29	+0·72
	Stornoway	60	45	51·4	− 4·1	4	0·52	−0·30
	Wick	63	46	53·3	− 2·7	6	1·24	+0·72
——	Scilly (St. Mary's)	63	54	58·8	− 5·5	7	0·85	+0·36
	Jersey (Noirmont)	74	54	60·2	− 2·8	5	0·93	+0·43

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending August 11, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, August 5.

Weather very unsettled and changeable; clear at first in some parts of Ireland and on our extreme S.E. coasts, dull and wet elsewhere. Rain falling subsequently in all parts of the kingdom, heavily in the N.W.

Temperature lower generally than on 4th; varying at 8 A.M. from 80° at Toulon to 60° or 62° over England and to 53° or 54° in the extreme N. of Scotland. Maxima during day varying from 63° to 67° over our inland counties.

Wind chiefly southerly over England and freshening, afterwards veering to S.W. and W. in this country, but freshening from the northward in Ireland and Scotland.

Sea little disturbed, except in the S.W.

Barometer highest (above 30 ins.) over France and Germany, lowest (below 29·8 ins.) over Ireland and Scotland. Well-formed depression developed subsequently over our western coasts and travelling north-eastwards.

Wednesday, August 6.

Weather still unsettled, but improving in S. and W.; steady rain still falling in N., and some showers experienced subsequently in most places.

Temperature showing some further decrease; maxima 60° to 65° over greater part of England, 55° to 60° in Scotland.

Wind fresh to strong from W. over England, N.W. in Ireland, northerly to north-easterly in the N. of Scotland. Little change later.

Sea rough in Channel and off our W. and N.W. coasts, smooth in the E.

Barometer highest in France. Depression over N. of England growing deeper and travelling north-eastwards. Barometer rising in W. and S.

Thursday, August 7.

Weather still cloudy, showery, and rather gusty in most places, but inclined to improve very slowly; showers falling irregularly during day.

Temperature low generally, 8 A.M. readings varying from 50° to 55° in the N., 55° to 58° over England; maxima about 67° in extreme S.E., 60° to 65° elsewhere.

Wind much the same as on 6th, but moderating, and afterwards becoming light and variable in the S. of Ireland.

Sea going down, but still rather rough in the extreme N.W. and in the Channel.

Barometer highest in S.W. of France. Depression's centre now off N.E. of Scotland, and mercury rising in its rear except in S. of Ireland.

Friday, August 8.

Weather changeable; fine at first in most eastern and central districts, cloudy elsewhere, with mist and rain in the S.W. Further falls of rain in N., and also at the French and our south-western stations later in the day.

Temperature changing irregularly, but inclined to rise generally; air close. Maxima 75° at Nottingham, 65° to 69° over our south-eastern counties.

Wind still northerly in Scotland, very variable elsewhere, but backing to southward on our south-western coasts.

Sea moderate to smooth, except about Hurst Castle.

Barometer still highest in the S., depression's centre now between the Shetlands and coast of Norway. Mercury still rising Scotland, but unsteady in the southern districts.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	

Saturday, August 9.

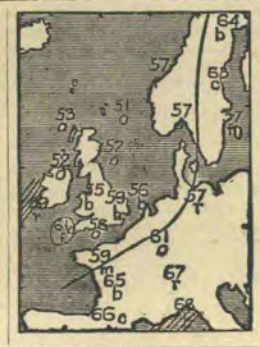
Weather much finer than of late, but air still close, and sky still becoming cloudy at times in many places. Rain in S. of Ireland at night.

Temperature very low, varying at 8 A.M. from 50° to 55° in most places, and to 58° on our extreme S.W. coasts; maxima not reaching 70° at any of our stations, and succeeding night very cold.

Wind moderate from N. in the N. and N.W., light north-westerly in the E. and S.E., light easterly in the S.W. and S., and afterwards variable.

Sea slight or smooth generally.

Barometer still highest over the Peninsula and S.W. of France, and becoming high over our western coasts. Subsidiary anticyclone appearing off our S.W. coasts, and increasing in size.



Sunday, August 10.

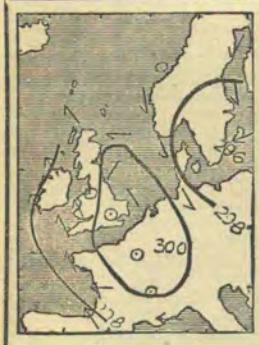
Weather exceedingly fine over the greater part of England, cloudy or dull generally with rain on our S.W. coasts and over N. Germany, and mist or rain at several French stations. Rain in the W. during the day.

Temperature not changing much; low over these Islands, varying from about 51° in the N. to 62° at Dover. Maxima exceeding 70° over central England, between 60° and 70° elsewhere.

Wind strong from S.E. over Ireland, moderate to fresh from the northward over the North Sea and from W. over France, light and variable over England. Southerly breeze subsequently spreading to most coasts.

Sea moderate to smooth except at Valentia.

Barometer high over England, low off our S.W. coasts and over Scandinavia, rising over France and Great Britain, but falling both over Ireland and the countries to the eastward of the North Sea. Little change later.



Monday, August 11.

Weather fine on our E. coast and at several French stations, cloudy or dull generally; rain falling at Stornoway, mist or fog in many places. Weather fine all day in the E., cloudy elsewhere.

Temperature risen generally—quickly at the central and north-western stations; ranging from 52° in the N. to 68° at Nottingham. Maxima between 70° and 75° in central and north-western districts, 81° at Nottingham, and 100° at Biarritz.

Wind easterly in France, south-easterly or southerly on most of our coasts, and north-westerly on the eastern shores of the North Sea; moderate or light in force, except at Valentia and in S. France. Scarcely any change during day.

Sea nearly smooth, except off the S.W. coast of Ireland.

Barometer high and uniform over the E. of Great Britain, the North Sea, France, and N. Germany, low off our W. coasts and over the Baltic. Pressure falling briskly S. France, changing little elsewhere. French fall affecting our S. coasts in evening.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇉ = a heavy gale; ⇉ = a gale; → = a fresh to strong breeze; → = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—8/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 33.] WEEK ENDING MONDAY, AUGUST 18, 1879. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	78	44	58	0 (average).	4	7	1 more.
	2. ENGLAND, NORTH-EAST	76	47	59	1 below.	4	8	3 more.
	3. ENGLAND, EAST	77	50	62	1 below.	5	6	1 more.
	4. MIDLAND COUNTIES	81	43	61	1 below.	4	17	11 more.
	5. ENGLAND, SOUTH	79	50	62	1 below.	4	10	7 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	78	41	59	1 above.	4	9	2 more.
	7. ENGLAND, NORTH-WEST	76	49	60	0 (average).	5	16	9 more.
	8. ENGLAND, SOUTH-WEST	71	51	60	2 below.	5	8	2 more.
	9. IRELAND, NORTH	70	45	58	1 below.	4	10	?
	10. IRELAND, SOUTH	73	42	59	1 below.	4	6	2 less.

General Remarks.

Weather fine generally during the early part of the week, but afterwards becoming very unsettled, especially at our western and southern stations. Extremely heavy rain in many parts of the country on the 16th and again in some places on the 17th. A violent thunderstorm over central England on the 13th. Temperature a little above the mean in "Scotland, W.," and about the mean in "Scotland, E.," and "England, N.W.," but rather below it in all other districts. Highest readings occurred during the earlier part of the week, when 75° was exceeded over the greater part of Great Britain, the highest reading of all (81°) being recorded at Nottingham on the 12th. By end of week maxima were all below 70°, and minimum at Nottingham on the 18th was as low as 43°.

Rainfall less than the mean in "Ireland, S.," but more in all other districts, the excess being greatest in the Midland Counties and England, N.W. At Shrewsbury 3·04 ins. fell between 11 a.m. on the 16th and 7 p.m. on the 17th, and at Cirencester 2·22 ins. fell in the course of the same days, while many stations report amounts varying between one and two inches.

Wind generally southerly (S.E. to S.W.) at first, but becoming more variable on the 14th and 15th; north-westerly breeze setting in in the west on the 16th, and spreading to most stations during the following day. On the 18th, however, south-easterly winds once more appeared in the south-west. Wind generally moderate or fresh in force, but strong gales and moderate gales in some places on the 17th.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	75	44	57·9	+ 0·7	2	0·49	−0·17
	Aberdeen	74	46	57·2	− 0·2	5	1·37	+0·64
	Glenalmond	74	45	57·3	− 0·2	5	0·45	?
	Leith	78	45	58·9	+ 0·5	4	0·34	−0·22
2. ENGLAND, N.E.	Shields	67	52	57·2	− 1·5	4	1·42	+0·87
	Durham	76	47	59·1	− 1·2	4	1·06	+0·52
	York	75	49	60·5	+ 0·2	5	0·37	−0·19
	Spurn Head							
	Kelstern (Lincolnshire) ℳ	71	49	59·6	− 1·1	3	0·47	−0·05
3. ENGLAND, E.	Yarmouth	69	52	59·6	− 2·0	5	0·30	−0·10
	Cambridge	77	50	63·0	+ 0·4	4	0·62	+0·24
	Audley End (Saffron Walden) ℳ	77	52	63·9	+ 1·3	4	0·51	+0·13
	Rothamsted	73	51	60·8	− 2·5	6	0·76	+0·29
4. MIDLAND COUNTIES	Nottingham	81	43	61·3	− 0·3	5	0·89	+0·26
	Loughborough	78	51	61·6	− 0·1	3	0·99	+0·53
	Leicester	75	52	61·1	− 1·0	5	1·15	+0·57
	Shrewsbury ℳ	76	49	59·5	− 1·7	4	3·09	+2·55
	Hereford ℳ							
	Cirencester	78	50	62·4	− 0·0	4	2·64	+1·99
	Oxford	76	51	61·0	− 2·0	4	1·39	+0·93
5. ENGLAND, S.	London	79	51	63·3	− 0·1	4	0·71	+0·28
	Marlborough ℳ	78	50	61·5	− 1·9	5	2·09	+1·50
	Strathfield Turgiss ℳ	77	50	61·6	− 1·8	5	1·93	+1·55
	Dover	71	54	62·0	− 0·4	3	0·42	−0·04
	Hastings	74	53	62·1	− 0·3	4	0·37	−0·06
	Hurst Castle	71	54	60·8	− 2·2	2	0·60	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	71	45	59·7	+ 2·7	4	0·46	?
	Glasgow	71	45	58·6	+ 0·3	3	0·47	−0·46
	Ardrossan	71	48	58·8	+ 0·7	3	0·88	0·00
	Silloth (Cumberland)	78	46	60·8	+ 1·8	3	0·57	−0·13
	Douglas (Isle of Man)	66	41	57·0	− 2·4	5	2·04	+1·26
7. ENGLAND, N.W.	Stonyhurst	74	49	59·8	− 0·9	5	1·48	+0·44
	Manchester	75	50	61·4	+ 0·7	4	0·96	+0·22
	Liverpool Observatory (Bidston)	76	54	60·3	− 0·3	5	1·73	+1·16
	Holyhead	74	52	59·6	− 1·0	4	2·33	+1·17
8. ENGLAND, S.W.	Pembroke	70	53	58·7	− 2·3	4	0·69	+0·10
	Barnstaple							
	Falmouth	68	53	59·4	− 3·0	5	1·23	+0·59
	Plymouth	71	52	61·9	− 0·3	5	0·61	+0·03
	Prawle Point	65	51	58·6	− 3·4	5	0·66	?
9. IRELAND, N.	Mullaghmore	67	52	59·4	+ 0·4	5	0·82	?
	Brookeborough	70	49	58·9	− 0·5	4	1·59	?
	Armagh	68	47	58·2	− 0·9	4	0·38	−0·25
	Donaghadee	63	45	56·1	− 3·1	4	1·01	?
10. IRELAND, S.	Dublin	68	48	59·3	− 0·4	3	0·41	−0·17
	Kingstown	71	49	59·4	− 0·2	4	0·36	−0·18
	Parsonstown	70	42	58·6	− 0·9	4	0·89	+0·11
	Roche's Point	73	50	60·8	+ 0·2	4	0·36	−0·43
	Valentia	63	51	58·5	− 1·9	7	0·79	−0·14
SCOTLAND, N.	Sumburgh Head	63	46	55·0	+ 0·6	2	0·35	−0·17
	Stornoway	67	47	57·6	+ 2·6	2	0·88	+0·02
	Wick	68	41	55·5	− 0·4	3	0·99	+0·37
——	Scilly (St. Mary's)	67	54	59·7	− 2·2	5	0·97	+0·51
	Jersey (Noirmont)	79	53	61·2	− 1·5	4	1·15	+0·62

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending August 18, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, August 12.

Weather very fine over England and the E. of Scotland, very misty and dull in the N.W. and W., with rain at Roche's Point. Thunderstorms at nearly all the western and northern stations later on, but rainfall not heavy except at Stornoway.

Temperature risen generally; air fresh and dry in E. and S.E. Maximum of 81° reported at Stornoway, 75° to 76° at other inland stations.

Wind generally southerly, but easterly to south-easterly in the south-eastern districts; light to moderate at first, but afterwards freshening greatly in the S.

Sea moderate to smooth.

Barometer highest over Norway, North Sea, and Netherlands, lowest (and falling) to westward of Ireland. Depressions to westward of us moving northwards.

Wednesday, August 13.

Weather still fine over eastern counties, more clouded elsewhere, and less settled generally than on 12th. Thunderstorms experienced subsequently in nearly all districts, with slight rain.

Temperature risen over France, changed irregularly on our coasts. Maxima in London 79° and at Cambridge 76°, but lower in other places, 72° at Nottingham, 70° at Oxford.

Wind generally southerly, south-easterly in the south-eastern districts, south-westerly in the S.W., moderate to fresh in most places at first, and blowing strongly in the N.W. and N. later on. Wind veering to N.W. in the S.W. during afternoon.

Sea rather rough in the extreme W. and N.

Barometer rising in France; low pressure area in W., moving northwards, and mercury rising over our Islands during day.

Thursday, August 14.

Weather at 8 A.M. very variable in different localities, but fair during day, except in S.W. of Ireland; fog in several places.

Temperature changing irregularly and little. Maximum reading over England varying from 75° to 77°.

Wind southerly to south-westerly in extreme N.W. and N., and rather strong; very light and variable elsewhere, and calm in several places. Freshening southerly wind appearing in Ireland later in day.

Sea slight, except in far N. and at Scilly.

Barometer uniformly high over France, England, and Ireland, and rising generally all day, but very slowly in the S.W. and S.

Friday, August 15.

Weather clear in N. and N.E., dull and foggy in England, cloudy in Ireland, with rain at Valentia. Rain subsequently all over Ireland and England and in S. of Norway; heaviest in the W.

Temperature changing little and irregularly; day maxima 73° to 77° in inland southern districts, 70° to 73° in N. of England.

Wind southerly in W.; strong in some places, light and variable over England. Wind subsequently shifting to N.W. at Valentia, but remaining southerly over the rest of Ireland and at Scilly.

Sea rough at Valentia, moderate at Scilly, slight or smooth elsewhere.

Barometer rather high and uniform over Scandinavia, North Sea, and Bay of Biscay; lower and falling in W. Depression off western coasts; another forming over Ireland later on, and moving slowly eastwards.

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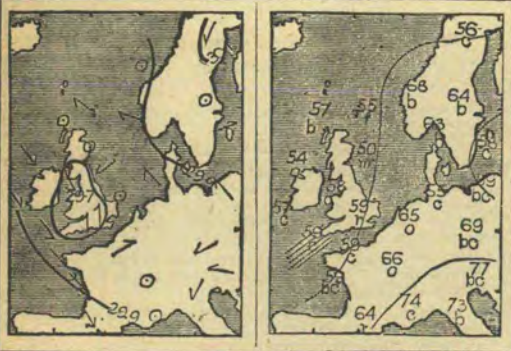
Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.



Weather during the 24 hours succeeding the date of the Charts.

Saturday, August 16.

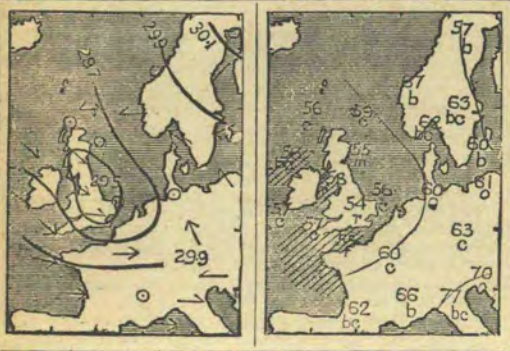
Weather dull, unsettled, and foggy, with rain in several places. Large quantities of rain during the next 24 hours, especially in the N.W. and N., and weather very dull and unpleasant.

Temperature fallen generally; 8 A.M. readings below 60° almost all over the Kingdom, and maxima below 70° in all places except Cambridge. At York maximum only 60°.

Wind varying greatly; light southerly in the south-eastern districts and easterly in the N., but fresh north-westerly in the W. and strong north-westerly in the S.W. A N.W. gale in western half of the Channel later.

Sea rough in the S.W., and rising.

Barometer. Well defined depression over England and Wales, moving very slowly to eastward, and growing deeper. Pressure remaining high over Scandinavia.



Sunday, August 17.

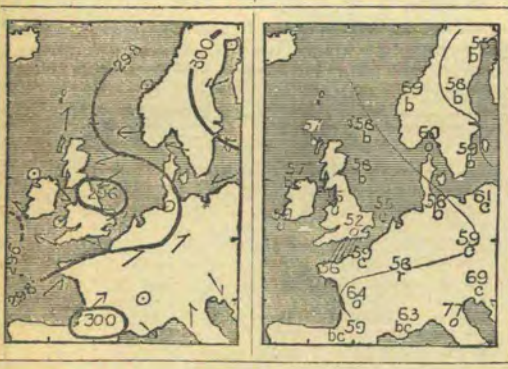
Weather dull, cold, wet, and unsettled almost everywhere; much rain in some places, but smaller quantities in others.

Temperature still very low; maxima only 54° at Oxford and 55° in London, but 61° at Nottingham and 64° at York.

Wind strong to a gale from N.W. in the W. and from W. in the Channel, Bay of Biscay and France, light from S. and S.E. over the North Sea, moderate from E. in the N.

Sea rough in N.W., S.W., and S.

Barometer highest over Spain and over N.E. of Scandinavia. Depression over England deeper than yesterday, but beginning to fill up later in day.



Monday, August 18.

Weather still dull, cloudy, and unsettled, but much fairer in most places than of late. Local falls of rain in most western and southern districts during day, but weather fair in N.

Temperature still changing irregularly, but afterwards rising to maxima of 69° at Oxford, 67° at Cambridge, and 66° in London.

Wind very variable indeed. A new south-easterly breeze appearing in extreme S.W. and a southerly wind at Stornoway.

Sea going down, but still rough off Ushant.

Barometer rising except in S.W. Depression over England dispersing. Changes irregular during day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE
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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL AND E. STANFORD, CHARING CROSS.

VOL. II. No. 34.] WEEK ENDING MONDAY, AUGUST 25, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	DISTRICTS.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	70	47	57	0 (average).	6	8	2 less.
	2. ENGLAND, NORTH-EAST	72	45	59	0 (average).	6	6	0 (average).
	3. ENGLAND, EAST	74	46	61	1 below.	6	14	10 more.
	4. MIDLAND COUNTIES	76	41	60	2 below.	5	9	4 more.
	5. ENGLAND, SOUTH	73	46	61	2 below.	7	22	16 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	67	47	58	1 below.	6	12	3 more.
	7. ENGLAND, NORTH-WEST	68	46	58	2 below.	5	12	5 more.
	8. ENGLAND, SOUTH-WEST	66	51	59	3 below.	7	19	11 more.
	9. IRELAND, NORTH	68	44	57	2 below.	6	13	?
	10. IRELAND, SOUTH	70	44	58	1 below.	5	10	2 more.

General Remarks.

Weather again very rainy and unsettled, especially in the western and southern districts. Heavy rain in "England, S. and S.W.," on the 19th and again on the 23rd. Sharp thunderstorm in many parts of England on afternoon of 21st. Temperature about the mean in "Scotland, E.," and "England, N.E.," but a little below it in all other districts. Maximum for week occurred in most places on the 24th, thermometer being above 70° at most of the inland stations, and as high as 76° at Nottingham. No very low minima reported.

Rainfall a little less than the mean in "Scotland, E.," but more than the mean in almost all other districts. Excess very large in "England, E. and S.W.," but especially so in "England, S.," owing to the heavy falls referred to above.

Wind generally south-westerly. Moderate in force in the east and north, but frequently strong in the west and south, and blowing fresh gale in these districts on the afternoon and evening of the 25th.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	66	49	57·0	+ 0·6	6	0·40	−0·27
	Aberdeen	68	48	58·2	+ 1·4	6	0·64	−0·10
	Glenalmond	62	47	54·9	− 1·9	7	1·70	?
	Leith	70	50	58·7	+ 1·1	5	0·42	−0·15
2. ENGLAND, N.E.	Shields	70	50	58·5	+ 0·5	6	0·71	+0·14
	Durham	71	47	58·9	− 0·6	5	0·49	−0·05
	York	72	46	60·0	+ 0·2	6	0·83	+0·23
	Spurn Head							
	Kelstern (Lincolnshire) ℳ	69	45	58·7	− 1·6	5	0·38	−0·15
3. ENGLAND, E.	Yarmouth	69	53	60·5	− 0·4	6	1·20	+0·74
	Cambridge	73	46	60·6	− 1·3	5	1·45	+1·08
	Audley End (Saffron Walden) ℳ	71	50	60·9	− 1·2	5	1·30	+0·91
	Rothamsted	74	48	60·8	− 1·7	7	1·61	+1·13
4. MIDLAND COUNTIES	Nottingham	76	44	61·3	+ 0·4	5	0·54	−0·13
	Loughborough	72	47	60·6	− 0·3	5	0·45	−0·03
	Leicester	70	47	59·9	− 1·3	4	0·60	+0·03
	Shrewsbury ℳ	73	41	57·9	− 2·7	6	0·93	+0·40
	Hereford ℳ							
	Cirencester	70	42	58·9	− 2·9	4	1·42	+0·76
	Oxford	68	48	59·3	− 2·8	5	1·53	+1·05
5. ENGLAND, S.	London	73	49	61·1	− 1·7	7	2·52	+2·06
	Marlborough ℳ	71	46	59·2	− 3·3	7	1·86	+1·20
	Strathfield Turgiss ℳ	72	46	60·8	− 1·9	6	2·28	+1·88
	Dover	69	54	61·2	− 0·6	7	1·73	+1·25
	Hastings	68	55	61·0	− 0·9	7	2·01	+1·55
	Hurst Castle	65	53	60·1	− 2·4	7	2·65	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	66	50	57·9	+ 1·4	6	1·45	?
	Glasgow	64	50	56·8	− 1·0	6	1·64	+0·73
	Ardrossan	64	53	58·0	+ 0·3	6	1·12	+0·17
	Silloth (Cumberland)	67	48	58·7	+ 0·4	6	1·06	+0·33
	Douglas (Isle of Man)	64	47	56·5	− 2·5	5	0·79	−0·02
7. ENGLAND, N.W.	Stonyhurst	65	47	56·8	− 3·0	5	1·81	+0·73
	Manchester	67	46	58·0	− 2·0	5	0·90	+0·14
	Liverpool Observatory (Bidston)	68	52	59·2	− 0·8	5	1·38	+0·90
	Holyhead	65	52	58·7	− 1·2	6	0·81	+0·18
8. ENGLAND, S.W.	Pembroke	64	55	58·5	− 1·9	7	0·60	−0·05
	Barnstaple							
	Falmouth	66	53	59·5	− 2·4	6	2·28	+1·63
	Plymouth	65	55	59·7	− 2·0	7	2·45	+1·83
	Prawle Point	63	51	57·9	− 3·7	7	2·30	?
9. IRELAND, N.	Mullaghmore	67	49	57·2	− 1·2	6	1·57	?
	Brookeborough	68	44	56·8	− 1·5	6	1·50	?
	Armagh	65	46	57·2	− 1·4	6	1·36	+0·73
	Donaghadee	66	46	56·9	− 1·8	6	0·79	?
10. IRELAND, S.	Dublin	66	49	58·6	− 0·5	5	0·63	+0·06
	Kingstown	69	50	59·2	+ 0·4	5	0·75	+0·18
	Parsonstown	69	44	57·8	− 0·9	6	1·62	+0·80
	Roche's Point	70	50	59·2	− 0·7	6	0·82	−0·03
	Valentia	65	48	57·1	− 2·6	4	0·69	−0·28
	*Foynes	67	46	56·5	− 3·1	5	1·70	?
SCOTLAND, N.	Sumburgh Head	61	49	55·5	+ 1·2	5	1·02	+0·48
	Stornoway	61	49	55·5	+ 0·9	5	1·89	+0·96
	Wick	63	49	56·4	+ 0·9	6	0·42	−0·24
——	Scilly (St. Mary's)	66	54	60·0	− 1·1	7	0·92	+0·38
	Jersey (Noirmont)	67	56	61·4	− 0·9	5	0·53	−0·05

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

* Foynes has now been added to the list of stations in "Ireland, S."

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending August 25, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, August 19.

Weather cloudy or overcast over these Islands and France, with fog or mist in several places, but moderately fine over parts of Scandinavia, Denmark, and North Germany. Heavy rain over south of England during day, and smaller amounts in other districts.

Temperature risen slightly generally. Very uniform in our Islands, varying from 54° at Shields and York to 60° at Yarmouth. Maxima below 65° in most places but as high as 67° at Cambridge, 68° at York, and 70° at Nottingham.

Wind light or moderate generally. Westerly over Ireland and France, southerly over England, south-easterly in Scotland, and easterly on eastern shores of North Sea; backing to southward in South Ireland during afternoon, and increasing to strong breeze at mouth of Channel.

Sea moderate to smooth.

Barometer lowest off our extreme western coasts, with areas of comparatively high pressure over Scandinavia and south of France; rising generally in morning, but fresh fall appearing in south-west during afternoon and subsequently spreading northward.

Wednesday, August 20.

Weather dull and rainy over the whole of the United Kingdom, with fog in the south-west; fine over Scandinavia and in some parts of France. Rain not heavy.

Temperature risen over England and France, little changed elsewhere. 8 A.M. readings in our Islands ranging from 55° at several of our northern stations to 63° at Cambridge and in London. Maxima over central England 69°.

Wind fresh to strong, south-westerly in the southern districts, with gale at Hurst Castle, but drawing into S.E. at the northern stations, and light or moderate in force. Calms over Sweden and variable breezes in the south of France.

Sea rough in western part of Channel, moderate to smooth elsewhere.

Barometer still lowest off our western coasts, and comparatively high over Scandinavia and the South of France. Falling generally at 8 A.M., but recovery taking place in S.W. during day.

Thursday, August 21.

Weather finer in the N. and W. than on 20th, but still dull and rainy elsewhere. Sharp thunderstorm in many parts of England during afternoon, with heavy rain in some places and hail at Dover.

Temperature a little higher in the N., but little change shown elsewhere; readings varying from 54° in the Shetlands and 56° at Mullaghmore, to 64° at Cambridge and in London. Thermometer subsequently reaching 70° at Cambridge, 72° at Dover, and 74° at Nottingham, but only 68° in London.

Wind generally southerly (S.E. to S.W.), and light or moderate in force. Strong south-easterly breezes in S. of Norway.

Sea rather rough off the S. of Norway and our S.W. coasts.

Barometer still highest over Sweden and the S. of France, and shallow depressions passing along our western coasts. Barometer rising in many places in morning, but new fall taking place generally in course of day.

Friday, August 22.

Weather much finer generally than of late, but still cloudy and rainy in some parts of Scotland. Rain during day in the N. and N.W.

Temperature fallen a little in most places, and low on our N.W. coasts; 8 A.M. reading at Liverpool only 52°, and at Mullaghmore 53°, but 62° over the S. coast of England. Maxima 70° at Cambridge and in London, but very little above 65° in central England generally.

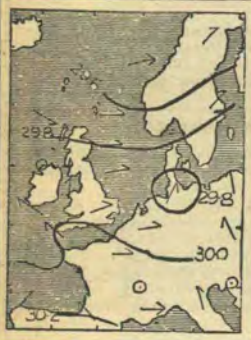
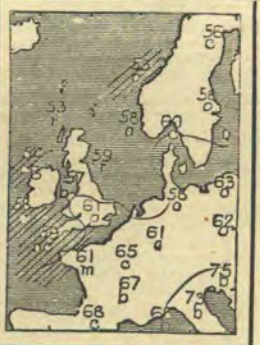
Wind generally south-westerly, drawing into S. and S.E. over Scandinavia; strong at first in the S. of England, but moderating during day; generally light on our northern coasts.

Sea rough at Valentia and in Channel.

Barometer highest over Sweden and S. France, with complicated depression off N.W. of Scotland. Mercury rising in S., and rise extending to other stations as disturbance passed away. Moderately steep gradients over England all day.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.		Weather during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, August 23. *Weather* moderately fair at all but our extreme southern stations, where heavy rain fell for several hours; largest amounts reported:—0·47 in. at Dover, 0·65 in. at Hurst Castle, 0·95 in at L'Orient, and 1·08 in. in London. *Temperature* changed very irregularly, general tendency being to fall. Readings varying from 53° at Wick and Nairn, to 60° at Dover and 61° at Aberdeen. Maxima slightly exceeding 70° over central England, but only 64° in London. *Wind* moderate; westerly at all the more northern stations, very variable in the south. North-easterly to northerly breeze at Scilly all day. *Sea* high off L'Orient, and rough in the western part of the Channel. *Barometer* rising at the northern stations but falling in south of England, owing to appearance of small depression in that region. Recovery setting in over southern districts during day.
		**Sunday, August 24.** *Weather* fine at all but extreme south-western stations, where it was cloudy. Becoming cloudy at all western and southern parts during latter part of day, and rain falling in most places. *Temperature* very little changed; varying from 53° at Cambridge, and 55° at York and Ardrossan, to 59° at Scilly. Maxima during day 73° in London and at Cambridge, 72° at York, and 70° at Leith. *Wind* light westerly over the northern parts of the Kingdom, and south-westerly in Scandinavia, but south-easterly breeze setting in in S.W. By evening the winds in N. had backed to southward, and those in S.W. had veered to S.W., the latter freshening somewhat. *Sea* rather rough in Bay of Biscay, slight or smooth elsewhere. *Barometer* highest S. France, lowest N. of Scandinavia, with small depression of previous day over N. Germany. Barometer rising in morning, but new fall taking place in W. during day.
		**Monday, August 25.** *Weather* fine at many western stations, dull elsewhere with much rain over Scotland and a gloomy appearance in the S.E. of England. Temporary improvement taking place during day, but rain setting in at nightfall. *Temperature* fallen Scotland and Scandinavia, risen slightly elsewhere; readings ever our Islands ranging from 53° at Stornoway and Nairn to 61° in London and at Cambridge. Maxima over central England 70° or 71°. *Wind* south-westerly or west-south-westerly generally, but south-easterly in the N. of Scotland. Strong and squally over England and Ireland, and blowing fresh gale at many western stations and also at mouth of Tyne during latter part of day. *Sea* rough on W. Coast and in Channel. *Barometer* still highest S. of France. Falling quickly over our Island during day, and deep depression appearing off W. of Scotland, producing steep gradients for south-westerly winds. Mercury inclined to rise in S.W. during evening.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	67	37	53	3 below.	6	9	1 more.
	2. ENGLAND, NORTH-EAST	68	38	55	3 below.	5	5	1 less.
	3. ENGLAND, EAST	69	36	57	5 below.	4	8	3 more.
	4. MIDLAND COUNTIES	71	36	57	4 below.	5	11	5 more.
	5. ENGLAND, SOUTH	69	36	58	4 below.	4	11	6 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	64	37	54	3 below.	6	15	0 (average).
	7. ENGLAND, NORTH-WEST	64	41	55	4 below.	5	14	6 more.
	8. ENGLAND, SOUTH-WEST	67	41	57	4 below.	4	13	8 more.
	9. IRELAND, NORTH	68	37	54	4 below.	7	13	?
	10. IRELAND, SOUTH	70	40	56	3 below.	5	11	4 more.

General Remarks.

Weather during the first half of the week continued very rainy and unsettled, but on the 30th it began to improve in the south, and the change gradually extended to all but the extreme northern and north-western districts. On the 30th and 31st August and the 1st September clear skies were reported from nearly all the English and Irish stations.

Temperature again below the mean. The maxima reported vary considerably in different localities; at some of the central stations the thermometer scarcely ever exceeded 65°, at others it rose a little above that point, the highest reading of all being 71° at Nottingham on the 1st September. The lowest minima occurred on the morning of the 1st, when slight ground frosts were registered at Hereford and in London.

Rainfall a little less than the mean in "England, NE.," and about the mean in "Scotland, W.," but above it in all other districts. In the western, southern, and midland districts the excess amounted to between five and eight tenths of an inch, the bulk of the fall taking place during the 26th and 27th August.

Wind generally south-westerly to westerly, but easterly breezes appearing in the south at the close of the week. The south-westerly breezes very strong over England and Ireland during the early part of the period, and increasing to a gale on several occasions, the most violent being that of the 28th.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	62	44	53·1	− 2·6	7	0·97	+0·27
	Aberdeen	67	40	53·4	− 2·8	7	1·08	+0·31
	Glenalmond	62	37	50·6	− 5·4	6	1·20	?
	Leith	67	42	55·9	− 0·8	5	0·39	−0·20
2. ENGLAND, N.E.	Shields	68	38	55·5	− 1·9	6	0·60	+0·02
	Durham	64	40	54·5	− 4·2	6	0·42	−0·14
	York	66	41	55·8	− 3·2	4	0·57	−0·07
	Spurn Head							
	Kelstern (Lincolnshire) ℳ							
3. ENGLAND, E.	Yarmouth	66	43	58·1	− 2·2	3	0·79	+0·26
	Cambridge	69	37	57·5	− 3·7	4	0·67	+0·27
	Audley End (Saffron Walden) ℳ	65	43	55·4	− 6·0	3	0·72	+0·27
	Rothamsted	65	36	55·5	− 6·1	5	1·09	+0·57
4. MIDLAND COUNTIES	Nottingham	71	37	57·5	− 2·4	5	1·37	+0·67
	Loughborough	67	37	56·9	− 3·3	3	0·87	+0·33
	Leicester	66	39	56·4	− 4·0	5	0·78	+0·19
	Shrewsbury ℳ	66	36	56·5	− 3·4	6	1·04	+0·50
	Hereford ℳ	67	37	56·9	− 3·8	4	0·78	+0·22
	Cirencester	65	36	55·2	− 6·0	5	1·86	+1·15
	Oxford	65	41	56·6	− 4·7	6	1·00	+0·47
5. ENGLAND, S.	London	68	39	57·6	− 4·4	4	1·22	+0·73
	Marlborough ℳ	67	46	56·0	− 5·7	4	1·55	+0·82
	Strathfield Turgiss ℳ	69	36	56·7	− 5·1	4	1·14	+0·66
	Dover	64	49	58·2	− 3·2	2	0·85	+0·33
	Hastings	64	47	57·8	− 3·6	5	0·85	+0·35
	Hurst Castle	65	44	58·7	− 3·2	3	0·86	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	61	44	53·1	− 2·8	7	3·80	?
	Glasgow	62	44	53·4	− 3·7	7	1·41	+0·45
	Ardrossan	62	49	55·4	− 1·7	5	0·81	−0·19
	Silloth (Cumberland)	64	45	56·3	− 1·3	6	0·77	−0·01
	Douglas (Isle of Man)	64	37	53·2	− 5·2	4	0·69	−0·11
7. ENGLAND, N.W.	Stonyhurst	62	42	53·6	− 5·2	6	2·02	+0·88
	Manchester	63	41	54·8	− 4·4	6	1·11	+0·31
	Liverpool Observatory (Bidston)	64	48	55·5	− 3·8	4	1·20	+0·58
	Holyhead	63	49	56·4	− 2·6	5	1·30	+0·61
8. ENGLAND, S.W.	Pembroke	62	47	56·6	− 3·0	4	1·66	+0·92
	Barnstaple							
	Falmouth	62	47	56·9	− 4·4	4	1·35	+0·69
	Plymouth	67	41	57·7	− 3·4	4	1·36	+0·63
	Prawle Point	62	45	56·2	− 4·8	3	0·66	?
9. IRELAND, N.	Mullaghmore	63	46	54·1	− 3·6	7	1·35	?
	Brookeborough	67	37	53·2	− 4·3	6	1·67	?
	Armagh	66	43	53·8	− 4·0	6	1·00	+0·33
	Donaghadee	68	42	54·8	− 3·5	7	1·05	?
10. IRELAND, S.	Dublin	67	44	55·9	− 2·4	5	0·57	0·00
	Kingstown	70	45	57·3	− 0·8	6	0·71	+0·11
	Parsonstown	65	40	54·2	− 3·6	5	0·85	+0·01
	Roche's Point	65	43	56·5	− 2·5	5	1·36	+0·44
	Valentia	62	46	56·0	− 2·8	5	2·32	+1·29
	Foynes	63	44	54·4	− 3·6	5	0·90	?
SCOTLAND, N.	Sumburgh Head	59	45	51·8	− 2·2	6	1·28	+0·74
	Stornoway	59	42	50·7	− 3·4	6	1·78	+0·80
	Wick	64	40	51·5	− 3·5	6	0·55	−0·13
——	Scilly (St. Mary's)	64	52	58·7	− 1·9	5	0·55	−0·12
	Jersey (Noirmont)	67	51	59·5	− 2·3	5	1·45	+0·85

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending September 1, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, August 26.

Weather fine at the Channel stations and in the east of Ireland, cloudy elsewhere, with rain at Aberdeen and in the N. of England, and lightning at Wick. Becoming dull in the W. during latter part of day, and rain setting in towards night; heavy amounts measured in South Ireland next morning.

Temperature fallen generally. 8 A.M. readings varying from 51° at York and 52° on our N.E. coasts to 59° in the S. of England. Maxima low, highest being 64° at Nottingham and 65° at Cambridge.

Wind moderate north-westerly in Scotland, fresh to strong westerly over England and Ireland, with moderate to fresh gales in Channel, and a strong gale at Pembroke. Backing to S.W. at many western stations towards evening.

Sea high at Hurst Castle, rough in the W. and S. generally.

Barometer highest south France, with rather deep depression off N.E. of Scotland. Mercury beginning to rise in west in morning, and recovery spreading eastwards later, but new fall commencing in S. Ireland during evening.

Wednesday, August 27.

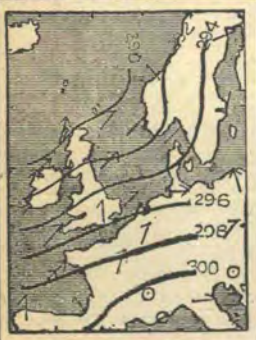
Weather fine at several of the Continental stations, but overcast throughout our Islands, with rain at all but the N.E. ports. Heavy amounts reported from many stations, but weather inclined to improve in W. towards evening.

Temperature not much changed. Readings varying between 50° and 55° over Scotland and central England, but increasing to 61° at Scilly. Maxima highest in N. of England and Ireland. Shields and Donaghadee 68°, Kingstown 70°, London only 63°.

Wind southerly to south-westerly, and strong to gale over England and Ireland, moderate south-easterly in north of Scotland. Fresh or strong gale at all Channel stations in evening.

Sea high at Hurst Castle, rough on all western and southern coasts.

Barometer still highest France. Deep depression off N.W. of Ireland in morning and passing slowly across Scotland in course of day and ensuing night. Recovery commencing in W. of Ireland during morning, and spreading gradually to other western stations in course of day.



Thursday, August 28.

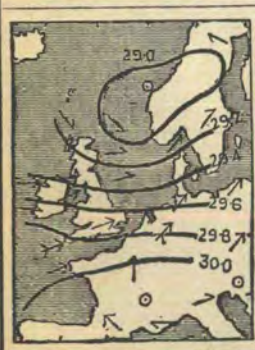
Weather locally fine in E. of Ireland and Scotland, dull elsewhere, with heavy rain over the whole of England. Considerable improvement taking place over England during day, and fine clear night experienced.

Temperature risen slightly most places. Readings varying from 52° in the Shetlands, to 61° at Dover. Maxima 65° at Oxford and Yarmouth, 66° at York, Nottingham, and Kingstown, 67° at Leith and Cambridge.

Wind generally south-westerly. Moderate or fresh in force in Scotland, but fresh gale at Mullaghmore, and strong gale over almost the whole of England and Ireland during latter part of day.

Sea rough on all western and southern coasts, and high in many places towards evening.

Barometer falling generally, briskly in north-west, and very deep depression travelling quickly in a north-easterly direction across Scotland during evening and night. Gradient between Valentia and Mullaghmore at 6 P.M. about 0·23 in. per 60 miles.



Friday, August 29.

Weather clear and fine at many of the northern and eastern stations, cloudy elsewhere, with showers in the W. of Ireland, and heavy squalls in the S.E. of England. A little rain in the W. and N. during day, and local showers in the S.E.

Temperature changed irregularly, but fallen many places. Readings varying from 53° in the N. of Scotland, to 61° at Nottingham and Dover. Maxima 67° at Aberdeen and in London, 68° at Nottingham and Cambridge.

Wind north-westerly to northerly in Scotland, generally westerly over England and Ireland. Strong breezes in many places at 8 A.M., and fresh gale at Mullaghmore and in Channel, but wind subsiding somewhat during day.

Sea high in Channel, and still rough in the west.

Barometer rising generally throughout day, but somewhat unsteadily in the south-west. Depression of previous day off west coast of Norway at 8 A.M., and no fresh disturbance showing itself.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, August 30. *Weather* still rainy and unsettled on the western coasts of Scotland and Ireland, fine generally elsewhere. Rain fell during the day at all but the south-eastern stations, and thunderstorms occurred at Donaghadee, Aberdeen, and over central England. *Temperature* fallen a few degrees in most places; readings varying from 49° in the Shetlands, and 51° on our extreme north-west coasts, to 60° at Scilly. Maxima 68° at Nottingham and 69° at Cambridge, but only 63° in London. *Wind* generally south-westerly to southerly in our Islands, but westerly on the eastern shores of the North Sea. Easterly breezes appearing in the south of France. Winds moderate or fresh in force. *Sea* rather rough at Sumburgh Head and Scilly, moderate to smooth elsewhere. *Barometer* highest over France, lowest in Scandinavia; very slight disturbances still passing along our western coasts. Mercury rising generally in morning, but falling slightly during day.
		Sunday, August 31. *Weather* very fine at all but extreme northern stations, where overcast skies were reported. Slight rain in N. and N.E. during day. *Temperature* fallen two or three degrees in most places; 8 A.M. readings varying from 48° in the north of Scotland to 59° at Dover. Maxima 66° at Nottingham and 68° in London. Ensuing night cold over central England, and slight frost registered on the grass in London. *Wind* north-westerly at most of the western and northern stations, westerly in the south and east. Generally light or moderate in force, but fresh in some parts of Scotland. *Sea* rather rough at Stornoway and Hurst Castle, moderate or slight elsewhere. *Barometer* rising generally all day, and area of high pressure forming over our southern and south-western stations. Shallow depression off N.E. of Scotland in morning, but subsequently passing away towards Norway.
		Monday, September 1. *Weather* still very fine over the greater part of England and Ireland, but cloudy in the W. and N. of Scotland and the N.W. of Ireland. A little rain in the latter districts during the day. *Temperature* fallen over central and south-eastern England, risen a little elsewhere. Readings ranging from 47° at York and 48° at Cambridge and Roche's Point to 52° in the N. of Scotland and 59° at Scilly. Maxima 67° in London, 69° at Cambridge, and 71° at Nottingham. *Wind* south-westerly over Ireland and the northern parts of Great Britain, easterly to north-easterly over the Channel and France. Fresh to strong in force at the extreme north-western stations, light in the S., with calms over central England. *Sea* rather rough at Stornoway, slight or smooth elsewhere. *Barometer* rising briskly generally, and large anticyclone (with readings above 30·40 ins.) over the S. parts of England and Ireland. Slight fall taking place in N. of Scotland towards evening.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⋙ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," the readings at certain places being given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 36.] WEEK ENDING MONDAY, SEPTEMBER 8, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	69	36	55	0 (average).	4	5	4 less.
	2. ENGLAND, NORTH-EAST	71	42	57	1 below.	3	4	3 less.
	3. ENGLAND, EAST	73	38	57	3 below.	4	1	4 less.
	4. MIDLAND COUNTIES	73	40	58	2 below.	4	6	1 less.
	5. ENGLAND, SOUTH	74	37	58	3 below.	3	3	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	70	42	56	1 below.	6	17	3 more.
	7. ENGLAND, NORTH-WEST	68	40	57	1 below.	5	12	3 more.
	8. ENGLAND, SOUTH-WEST	75	40	58	2 below.	4	12	5 more.
	9. IRELAND, NORTH	66	39	55	2 below.	6	28	?
	10. IRELAND, SOUTH	70	45	57	1 below.	6	17	9 more.

General Remarks.

Weather very changeable but fair on the whole over the eastern and southern districts, cloudy and unsettled in the west and north. A good deal of rain at the western stations, especially during the last three days. Thunderstorms over "England, N.E. and E." on the afternoon of the 1st.

Temperature a little below the mean in all districts excepting "Scotland, E." The highest maxima were registered in most places about the 6th or 7th, but in some parts of central and southern England they occurred on the 4th. The minima at the commencement of the week were below 40° in most of the English districts, but by the close of the week they were again above 50°.

Rainfall less than the mean in all the wheat producing districts, more in all the grazing districts, the excess being especially large in Ireland, where some heavy falls occurred on the 6th and 7th. At Mullaghmore 1·25 ins. was measured on the 6th and 3·53 ins. on the 7th, making the total fall for the two days no less than 4·78 ins.

Wind generally south-westerly at the commencement of the week, and strong to a gale at the western and northern stations. Easterly to south-easterly breezes setting in on 4th and 5th, but southerly to south-westerly current re-establishing itself by close of week, and again blowing strongly in the west.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	68	39	56·4	+ 1·6	4	0·21	−0·50
	Aberdeen	65	41	55·1	− 0·4	2	0·26	−0·54
	Glenalmond	62	36	52·3	− 3·2	6	0·96	?
	Leith	69	41	57·5	+ 1·7	4	0·38	−0·22
2. ENGLAND, N.E.	Shields	68	44	55·0	− 1·8	4	0·12	−0·48
	Durham	70	45	57·2	− 0·5	3	0·55	−0·04
	York	71	46	57·7	− 0·6	3	0·48	−0·21
	Spurn Head							
	Kelstern (Lincolnshire) ℳ	69	42	56·4	− 2·2	3	0·24	−0·34
3. ENGLAND, E.	Yarmouth	72	46	57·9	− 1·9	3	0·08	−0·54
	Cambridge	75	42	57·8	− 2·5	1	0·13	−0·35
	Audley End (Saffron Walden) ℳ	73	38	56·4	− 4·2	5	0·09	−0·43
	Rothamsted	69	41	55·8	− 4·9	5	0·27	−0·30
4. MIDLAND COUNTIES	Nottingham	73	43	59·6	+ 0·6	4	0·32	−0·40
	Loughborough	71	42	57·8	− 1·6	3	0·52	−0·11
	Leicester	69	44	57·2	− 2·4	3	0·28	−0·32
	Shrewsbury ℳ	69	40	57·7	− 1·3	4	1·05	+0·47
	Hereford ℳ	71	40	56·5	− 3·4	6	0·96	+0·30
	Cirencester							
	Oxford	68	44	56·4	− 3·9	4	0·17	−0·43
5. ENGLAND, S.	London	74	45	59·4	− 1·6	3	0·05	−0·50
	Marlborough ℳ	71	38	56·8	− 3·9	3	0·47	−0·35
	Strathfield Turgiss ℳ	73	37	57·1	− 3·9	2	0·16	−0·40
	Dover	66	48	58·7	− 2·1	3	0·54	−0·06
	Hastings	69	48	58·8	− 2·0	4	0·28	−0·29
	Hurst Castle	66	43	57·5	− 3·7	3	0·13	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	66	42	56·0	+ 1·0	6	3·29	?
	Glasgow	64	42	54·1	− 2·1	6	1·18	+0·16
	Ardrossan	64	44	55·0	− 1·5	6	1·22	+0·20
	Silloth (Cumberland)	70	44	57·3	+ 0·5	4	0·98	+0·14
	Douglas (Isle of Man)	61	44	55·4	− 2·2	6	1·61	+0·80
7. ENGLAND, N.W.	Stonyhurst	66	46	56·3	− 1·6	5	1·20	−0·01
	Manchester	67	40	55·6	− 2·8	2	1·03	+0·16
	Liverpool Observatory (Bidston)	68	48	58·1	− 0·4	5	1·28	+0·51
	Holyhead	66	50	58·2	− 0·1	6	1·45	+0·69
8. ENGLAND, S.W.	Pembroke	62	52	57·3	− 1·5	5	1·80	+0·98
	Barnstaple	?75	41	62·2	+ 2·3	3	1·22	+0·26
	Falmouth	62	45	56·3	− 4·3	4	1·07	+0·38
	Plymouth	66	40	55·7	− 4·7	3	1·07	+0·22
	Prawle Point	63	46	56·3	− 4·0	3	0·75	?
9. IRELAND, N.	Londonderry*	64	45	55·1	− 1·2	6	2·28	?
	Mullaghmore	64	49	55·5	− 1·4	6	5·71	?
	Brookeborough	63	39	53·9	− 2·6	6	2·92	?
	Armagh	66	45	54·5	− 2·5	7	1·75	+1·05
	Donaghadee	61	48	54·5	− 2·6	5	1·40	?
10. IRELAND, S.	Dublin	68	48	57·3	− 0·3	6	1·26	+0·70
	Kingstown	70	48	57·4	0·0	6	1·36	+0·76
	Parsonstown	67	45	57·1	+ 0·2	6	2·65	+1·81
	Roche's Point	65	48	56·9	− 1·4	6	1·46	+0·46
	Valentia	62	51	57·3	− 0·7	6	1·97	+0·87
	Foynes	64	47	55·0	− 2·0	6	1·66	?
SCOTLAND, N.	Sumburgh Head	57	41	50·8	− 2·8	6	0·77	+0·24
	Stornoway	61	40	52·6	− 1·0	5	1·52	+0·49
	Wick	63	40	52·0	− 2·4	6	0·47	−0·23
——	Scilly (St. Mary's)	64	50	58·5	− 1·5	4	1·46	+0·63
	Jersey (Noirmont)	70	52	60·9	− 0·3	3	0·16	−0·48

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.
The temperature values for Barnstaple appear too high.

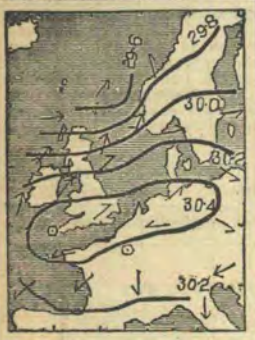
* Londonderry has now been added to the list of stations in "Ireland, N."

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending September 8, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.



Weather during the 24 hours succeeding the date of the Charts.

Tuesday, September 2.

Weather dull and unsettled at all the northern and north-western stations, with rain in some places, but still exceedingly fine in the S. and S.E. A little rain in the N. during the day.

Temperature risen a little in most places; readings over our Islands varying from 49° at York, 50° at Donaghadee, and 51° in the Shetlands, to 60° at Scilly, but thermometer at Toulon as high as 73°. Maxima during day about 70° over the S.E. of England, but 79° at Rochefort and 82° at Toulon.

Wind generally south-westerly. Strong to a gale in the N. and N.W., but extremely light in the S.; north-easterly breezes prevailing over France. Wind veering to W. in the N. of Scotland towards evening.

Sea rough in the W. and N.; smooth elsewhere.

Barometer lowest in the far N., with a band of high pressure stretching from N. Germany across the Netherlands and S. of England to the mouth of the Channel. Mercury falling quickly in N. in morning, and gradients for south-westerly winds steep, but recovery commencing at Stornoway during afternoon.

Wednesday, September 3.

Weather clear over England, and fine but foggy in France, dull elsewhere, with gloom in the W. of Ireland and rain in some parts of Scotland. Sky clearing in Scotland during afternoon. Rain at most western stations in course of day.

Temperature risen in most places. Lowest reading in our Islands 52° at Cambridge, highest 62° at Kingstown; thermometer elsewhere varying between 55° and 59°. Maxima rather high over central England, highest being 73° at Nottingham, 74° in London, and 75° at Cambridge.

Wind generally south-westerly in our Islands, but easterly over France; fresh to strong in force in the W. and N.W., but moderate in the E. and quite light in the Channel. Wind veering to W. or W.N.W. in the N. during the day.

Sea rough off the W. of Ireland and at Christiansund, quite smooth in the Channel.

Barometer highest over France, with depressions still passing in a north-easterly direction outside the Scotch coasts. Mercury falling generally in morning, but afterwards recovering at our north-western stations.

Thursday, September 4.

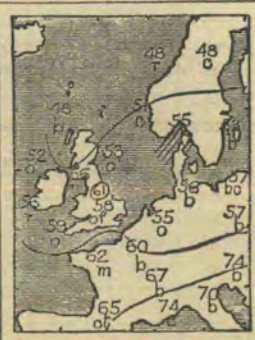
Weather fine over nearly the whole of the United Kingdom and France, but more unsettled on the eastern shores of the North Sea. Becoming dull at many southern stations in course of day with rain at Scilly. A little rain in the W. during day or ensuing night.

Temperature fallen in Scotland, risen most other parts; 8 A.M. readings varying from 48° to 55° in Scotland, from 53° to 57° in Ireland, and from 50° to 59° in England. Maxima lower than on previous day, highest only 67° at York, 68° in London, and 70° at Nottingham.

Wind westerly to north-westerly on our N. and E. coasts, but north-easterly in the S. Light or moderate in force over our Islands, but gales in Scandinavia.

Sea rough round the Hebrides and Shetlands, slight on our other coasts.

Barometer rising rather briskly in Scotland, but falling in S. of England and over Continent. Large area of high readings covering almost the whole of the United Kingdom, depressions disappearing over northern Europe.



Friday, September 5.

Weather clear and fine over Scotland and in many parts of Continent, but dull and misty over England, Ireland, and the W. of France. Cloudy weather extending to Scotland, and rain falling at many western stations during day.

Temperature fallen in N., risen elsewhere; readings over our Islands varying from 44° at Nairn to 61° at Nottingham. Maxima ranging over central England from 62° at York, 64° at Cambridge, and 65° in London, to 68° at Nottingham.

Wind light and variable in Scotland, generally easterly over England, Ireland, and the N. of France: still westerly in Scandinavia. Easterly breeze extending to Scotland during morning, but shifting to southward at our western stations. Winds light or moderate in force throughout day.

Sea slight or smooth generally.

Barometer rising in Scandinavia, but falling in our Islands, and anticyclone of previous day now shown over the North Sea. Two depressions approaching our coasts, one from the Atlantic towards Ireland, the other from southern France towards the Channel, but gradients quite slight.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, September 6.

Weather still fine on the eastern shores of the North Sea, but very cloudy over our Islands and France, with rain in Scotland, and mist over the Channel. Rain falling during the day, very heavily at some of the western ports.

Temperature risen in the north and north-west, little changed elsewhere; readings varying from 52° or 53° in the extreme north of Scotland to 60° at some of the Channel stations, and 61° at Holyhead. Maxima 69° at Leith and in London, 71° at Nottingham, and 72° at Cambridge. Air close.

Wind southerly in the west and north, light northerly in the south-east of England and N. of France, and westerly in the south of France. Strong at some western and northern stations, but falling moderate during day.

Sea rather rough off Shetlands and Mullaghmore, smooth in the south.

Barometer rising over Scandinavia, falling generally elsewhere. Depressions passing in a northerly direction outside our western coasts, and shallow local disturbance lying over the N.E. of France. Gradients moderately steep in west.

Sunday, September 7.

Weather foggy in the E. and N.E., dull and rainy in the W., changeable in the S.E. Rain falling generally later on, most in the W.; unusually heavy fall in N.W. of Ireland.

Temperature risen over England, fallen in Ireland. Maxima between 70° and 75° in the eastern and northern counties, but little above 60° in the W.

Wind varying greatly; chiefly southerly over England and easterly in Scotland, but northerly in the W. and S. of Ireland, and south-westerly over the N. of France. Subsequently veering to W. in the S. and freshening.

Sea moderate generally, but rough on some parts of our E. and N.E. coasts.

Barometer fallen. Shallow depression over Ireland at 8 A.M., subsequently growing deeper and travelling northwards.

Monday, September 8.

Weather very fine at first at all but our extreme western stations, where heavy rain fell. Rain subsequently extending to all but Scotch stations, with thunder in many places.

Temperature lower than on the 7th; maxima not above 69° at any station.

Wind southerly to south-westerly very generally, strong to a gale in far W., fresh to moderate elsewhere. Subsequently shifting to W. at our western stations, and blowing hard later on.

Sea rough in extreme W., N.W., and N.

Barometer rising in the E. and S., still falling in W. and N.W. Depression in N.W. growing much deeper, and then beginning to move eastwards towards England.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[48.—150.—9/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 37.] WEEK ENDING MONDAY, SEPTEMBER 15, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	66	38	54	1 below.	3	6	2 less.
	2. ENGLAND, NORTH-EAST	66	41	55	2 below.	4	8	1 more.
	3. ENGLAND, EAST	70	39	57	3 below.	5	9	2 more.
	4. MIDLAND COUNTIES	69	38	56	3 below.	4	8	1 more.
	5. ENGLAND, SOUTH	70	38	57	3 below.	5	8	0 (average).
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	64	40	54	2 below.	5	9	3 less.
	7. ENGLAND, NORTH-WEST	65	41	55	3 below.	4	7	2 less.
	8. ENGLAND, SOUTH-WEST	67	44	56	3 below.	5	6	2 less.
	9. IRELAND, NORTH	61	43	53	2 below.	5	9	?
	10. IRELAND, SOUTH	66	44	55	2 below.	5	7	1 less.

General Remarks.

Weather very changeable, but finer during the latter part of the week than at its commencement. Heavy rain at all the western and northern stations on the 11th, and in "England, S. and E." on the 13th.

Temperature once more below the mean in all districts. Maxima scarcely ever reaching 70° even over central England, and frequently below 65°; highest readings occurred in most places on the 15th. Minima rather low at close of week, but no night frosts reported.

Rainfall more than the mean in "England, N.E. and E." and the Midland Counties, but less in all other districts. The difference from the mean not very large in any part of the kingdom.

Wind generally south-westerly to westerly during the early part of the week, with strong breezes (and occasionally slight gales) on the north-western coasts. Northerly to easterly winds setting in at the southern stations towards the close of the period, and the south-westerly wind in the N.W. falling more moderate.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	63	42	53·4	− 0·6	2	0·42	−0·31
	Aberdeen	66	40	54·4	− 0·5	2	0·73	−0·09
	Glenalmond	61	38	51·5	− 3·3	4	0·79	?
	Leith	64	45	54·9	− 0·1	3	0·33	−0·27
2. ENGLAND, N.E.	Shields	65	41	53·7	− 2·3	3	0·13	−0·49
	Durham	66	44	54·3	− 2·3	3	0·29	−0·31
	York	65	43	55·0	− 2·3	4	0·86	+0·13
	Spurn Head	64	50	56·8	− 0·5	4	1·06	?
	Kelstern (Lincolnshire) ℳ	65	43	54·9	− 3·0	4	1·45	+0·86
3. ENGLAND, E.	Yarmouth	65	46	56·7	− 2·4	2	0·71	+0·02
	Cambridge	70	42	57·4	− 1·8	4	0·67	+0·15
	Audley End (Saffron Walden) ℳ	70	41	57·3	− 2·2	7	0·95	+0·36
	Rothamsted	65	39	55·0	− 4·6	6	1·06	+0·44
4. MIDLAND COUNTIES	Nottingham	69	39	56·8	− 1·2	4	0·88	+0·15
	Loughborough	68	38	55·8	− 2·7	4	0·96	+0·28
	Leicester	65	41	55·7	− 3·0	4	1·06	+0·44
	Shrewsbury ℳ	66	40	55·7	− 2·3	4	0·36	−0·24
	Hereford ℳ	67	39	55·5	− 3·2	3	0·50	−0·27
	Cirencester	65	40	55·1	− 4·3	4	0·84	+0·01
	Oxford	66	43	56·4	− 2·9	4	0·75	+0·09
5. ENGLAND, S.	London	68	43	57·5	− 2·7	3	0·71	+0·12
	Marlborough ℳ	69	39	55·6	− 4·0	5	0·98	+0·10
	Strathfield Turgiss ℳ	70	38	56·9	− 3·2	4	0·64	−0·01
	Dover	63	52	58·2	− 2·1	5	0·56	−0·11
	Hastings	65	48	57·4	− 2·7	5	0·57	−0·06
	Hurst Castle	66	48	58·2	− 1·9	5	1·05	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	63	45	53·2	− 1·0	7	1·66	?
	Glasgow	61	44	53·0	− 2·0	6	0·77	−0·31
	Ardrossan	61	46	53·8	− 1·7	4	0·70	−0·33
	Silloth (Cumberland)	64	42	55·2	− 0·8	3	0·80	−0·10
	Douglas (Isle of Man)	60	40	53·0	− 3·7	3	0·55	−0·25
7. ENGLAND, N.W.	Stonyhurst	60	41	54·3	− 2·7	4	0·73	−0·07
	Manchester	65	42	54·1	− 3·3	4	0·54	−0·33
	Liverpool Observatory (Bidston)	65	48	55·6	− 2·1	3	0·69	−0·25
	Holyhead	60	48	55·3	− 2·3	3	0·65	−0·15
8. ENGLAND, S.W.	Pembroke	60	50	56·0	− 2·3	4	0·54	−0·36
	Barnstaple							
	Falmouth	62	51	56·2	− 3·6	6	0·77	+0·06
	Plymouth	64	44	57·0	− 2·6	5	0·60	−0·40
	Prawle Point	67	48	56·5	− 3·2	5	0·48	?
9. IRELAND, N.	Londonderry	59	46	53·4	− 1·6	6	0·78	?
	Mullaghmore	59	48	53 8	− 2·1	7	0·87	?
	Brookeborough	61	43	52·3	− 3·3	4	1·31	?
	Armagh	61	46	53·6	− 2·6	4	0·71	−0·03
	Donaghadee	60	45	53·2	− 2·8	3	0·60	?
10. IRELAND, S.	Dublin	63	46	55·2	− 1·7	5	0·35	−0·19
	Kingstown	66	46	55·3	− 1·3	2	0·30	−0·32
	Parsonstown	62	44	54·4	− 1·7	4	0·67	−0·19
	Roche's Point	65	46	55·3	− 2·1	3	1·22	+0·62
	Valentia	60	46	54·8	− 2·1	7	0·80	−0·38
	Foynes	62	47	54·2	− 1·9	6	0·86	?
SCOTLAND, N.	Sumburgh Head	58	43	51·0	− 1·8	5	0·34	−0·18
	Stornoway	58	43	50·8	− 2·1	3	0·68	+0·12
	Wick	60	43	52·2	− 1·4	5	0·52	−0·17
———	Scilly (St. Mary's)	60	52	56·7	− 2·8	5	0·72	−0·26
	Jersey (Noirmont)	64	46	57·4	− 3·0	4	0·83	+0·16

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

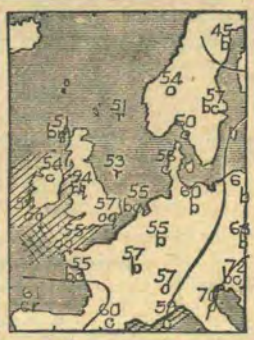
II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending September 15, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, September 9.

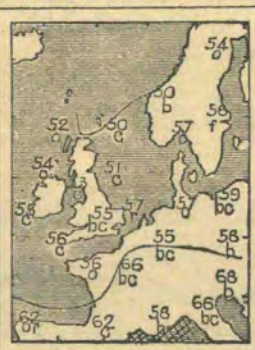
Weather dull and unsettled in all parts of our Islands, with rain in several places. Sky clearing at some western and northern stations during latter part of day.

Temperature showing very little change, except in the south of France, where rapid fall had occurred. 8 A.M. readings varying from 51° in the Shetlands and Hebrides to 57° in the S.E. of England. Maxima 62° at Nottingham, 64° in London, and 65° at Cambridge.

Wind strong to a gale from W. on our western and southern coasts, and fresh south-westerly in the S.E., but light from E. in the N. Shifting to N. over Scotland during day, and to N.W. or W.N.W. at most of the English and Irish stations.

Sea high at Scilly, rough in the W. and S. generally.

Barometer falling briskly in E., but recovering rapidly in W. Depression which lay off N.W. Ireland on previous day now found with its centre over the N. of England, and continuing to travel away eastwards during day. Recovery extending to all stations in course of afternoon.



Wednesday, September 10.

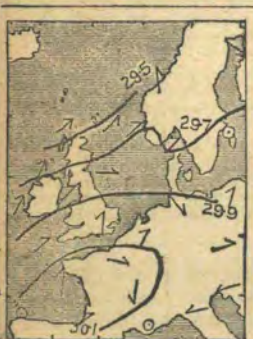
Weather fine on our E. and S.E. coasts, cloudy generally elsewhere. Cloud extending to some of the eastern stations during day, and a little rain falling in some places.

Temperature fallen a little in the N. and E., little changed elsewhere. 8 A.M. readings low generally, and maxima over central England only 64°.

Wind north-westerly, but beginning to back at the most western stations; moderate to fresh in force in all places. By 6 P.M. winds had become westerly at nearly all stations, and even west-south-westerly in the W. of Ireland.

Sea moderate or slight.

Barometer rising generally at 8 A.M., but new fall commencing in W. during after part of day. Depression of previous two days now found near the Danish coasts, but apparently "filling up."



Thursday, September 11.

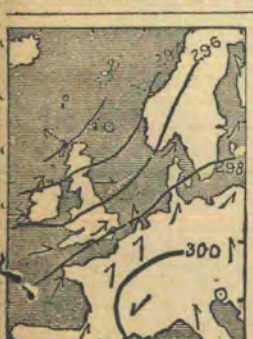
Weather overcast in all parts of our Islands (with rain on the W. coasts of Ireland and Scotland), but fine on the Continent. Rain falling heavily in W. during day, and extending to nearly all our other stations.

Temperature risen slightly in most places, and very uniform, between 51° and 58° over almost the whole of western Europe. Maxima 64° in London, and about 65° over central England.

Wind generally south-westerly; light in the S. and E., but fresh to strong in the W. and N.W. Beginning to veer to W. at some western stations in evening.

Sea rough on our extreme western coasts, moderate to smooth elsewhere.

Barometer highest and rising over France, lowest off our N.W. coasts, and falling in all parts of the Kingdom. Series of depressions passing in a north-easterly direction outside the western and northern coasts, but not sufficiently near to cause any serious increase of wind.



Friday, September 12.

Weather temporarily fine in the E. of Scotland, but dull, unsettled, and rainy in almost all other districts. Some improvement taking place in W. during day, but no important change elsewhere.

Temperature fallen in W. and N., risen slightly in the south; readings below 50° in the N. of Scotland, but as high as 59° or 60° in the S. of England. Maxima at central English stations about 65°.

Wind still south-westerly generally, fresh to strong in force in many exposed places, veering to westward at all western and north-western stations in course of day, and falling moderate or light.

Sea rather rough in the Channel and off the W. of Ireland, moderate elsewhere.

Barometer falling everywhere. Large depression off our north-western coasts, moving north-eastwards, and small subsidiary disturbance over Wales; latter depression passing across England during day, and recovery taking place in south-west towards evening.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, September 13.

Weather fine generally in morning, but becoming dull and wet in the S. of England during afternoon. Heavy rain falling at all the southern stations; half an inch measured in many places, 0·7 in. at Spurn Head and Yarmouth, and as much as 0·9 in. at Brest.

Temperature fallen slightly in most places; 8 A.M. readings varying from 47° at Nairn and 49° at Donaghadee, to 60° at Dover. Highest maxima 65° at Cambridge and 68° in London.

Wind light or moderate in force everywhere. Generally westerly or south-westerly in morning, but light easterly breezes setting in over the S. of England during the afternoon and evening.

Sea slight on nearly all our coasts.

Barometer rising at all the northern stations, falling over the W. of France. Depression passing up Channel in course of day, causing fall of mercury over the whole of the south of England, but recovery commencing at Scilly in evening.

Sunday, September 14.

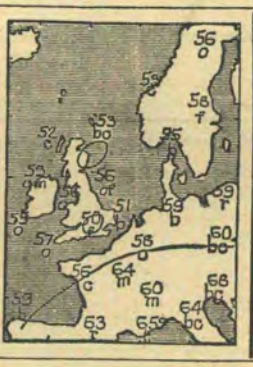
Weather fine at all but the south-eastern and extreme north-western stations. Becoming dull in the W., but improving considerably in the E., in after part of day.

Temperature fallen a little; lowest readings in our Islands 47° at Nairn and 48° at Roche's Point; highest, 58° at Dover and Yarmouth. Maxima 65° to 67° in the S. of England, and 69° at Nottingham.

Wind fresh to strong from S.W. in the N.W., light north-westerly in the E., and northerly in the S. Fresh southerly breezes in Scandinavia and Denmark. Wind veering to W. and N.W. on our N.W. coasts during the day.

Sea rough at Stornoway, slight or smooth elsewhere.

Barometer falling over Denmark and the Netherlands, rising elsewhere. Three depressions shown on morning chart, one off the N.W. of Scotland, another near Paris, and a third with its centre in the neighbourhood of the Dogger Bank. All three disturbances passing away in course of day, and barometer rising steadily.



Monday, September 15.

Weather more or less cloudy or unsettled all day in the W. and N., but fine in the S. and S.E., though with slight fog early. Scarcely any rain over these Islands.

Temperature risen in W., fallen at all eastern and central stations, varying from 57° in the S.W. to 49° at Oxford and 46° at Aberdeen. Maxima between 60° and 67° over greater part of southern England, but 70° at Cambridge.

Wind light from N.E. over the Channel, and from W. to S.W. on our more northern coasts, with light variable airs in the intervening region. Southerly breeze appearing at Valentia later.

Sea slight.

Barometer beginning to fall a little at Valentia, still rising elsewhere. Narrow band of high readings over southern England and the Netherlands, with low pressures over France and Norway. Mercury falling in the S. later.

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3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee
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	8. ENGLAND, SOUTH-WEST	67	43	57	1 below.	4	7	0 (average).
	9. IRELAND, NORTH	63	43	53	2 below.	4	7	?
	10. IRELAND, SOUTH	65	43	54	1 below.	3	4	4 less.

General Remarks.

Weather generally dull, with a good deal of fog and mist over England, but very little rain until quite the close of the week.

Temperature about the mean in "Scotland, E.," and "England, S.," but a little below it in all other districts. The maximum for the week occurred at various times in different places, owing to local brief clearances of the sky; but as a rule the highest readings were observed either on the 16th or about the 20th and 21st, the minima not showing any great variation.

Rainfall less than the mean in most districts, the deficit being greatest in "Scotland, E.," and "England, N.W." In "Scotland, W.," some heavy falls at the close of the week brought the total amount up to the mean.

Wind at first south-westerly in the far north and easterly or north-easterly in the south, but becoming northerly generally on the 18th, and continuing so during the greater part of the 19th. Strong south-westerly breezes or moderate gales setting in over the western districts next day, and breezes from that quarter or W. continuing until the close of the week. Heavy gale threatening on the night of the 22nd.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	63	44	53·2	+ 0·3	2	0·07	−0·66
	Aberdeen	63	45	54·1	+ 0·2	4	0·31	−0·52
	Glenalmond	58	42	51·0	− 2·8	2	0·71	?
	Leith	67	47	54·7	+ 1·0	1	0·16	−0·47
2. ENGLAND, N.E.	Shields	67	40	53·2	− 1·8	3	0·27	−0·38
	Durham	66	41	54·0	− 1·4	3	0·26	−0·34
	York	69	45	55·2	− 0·8	5	0·32	−0·41
	Spurn Head	64	49	55·9	− 1·3	3	0·48	?
	Kelstern (Lincolnshire) ℳ	64	43	55·5	− 1·4	3	0·32	−0·30
3. ENGLAND, E.	Yarmouth	64	49	57·0	− 1·3	4	0·26	−0·47
	Cambridge	69	42	57·8	− 0·2	4	0·20	−0·34
	Audley End (Saffron Walden) ℳ	67	41	56·7	− 1·5	3	0·22	−0·42
	Rothamsted	65	44	56·8	− 1·4	5	0·38	−0·30
4. MIDLAND COUNTIES	Nottingham	68	43	56·7	− 0·1	3	0·23	−0·50
	Loughborough	67	45	55·9	− 1·2	2	0·20	−0·55
	Leicester	64	45	55·1	− 2·3	2	0·20	−0·44
	Shrewsbury ℳ	65	42	54·5	− 2·5	2	0·07	−0·58
	Hereford ℳ	65	46	55·7	− 2·0	3	0·27	−0·54
	Cirencester	65	41	55·0	− 3·0	2	0·53	−0·35
	Oxford	66	45	56·5	− 1·5	3	0·33	−0·37
5. ENGLAND, S.	London	68	45	58·6	− 0·1	4	0·22	−0·41
	Marlborough ℳ	66	42	56·3	− 1·9	3	0·76	−0·16
	Strathfield Turgiss ℳ	70	41	57·6	− 1·0	1	0·33	−0·37
	Dover	64	51	59·8	+ 0·8	2	0·06	−0·64
	Hastings	69	48	58·8	0·0	4	0·20	−0·49
	Hurst Castle	66	52	58·3	+ 0·3	2	0·29	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	62	44	52·6	− 0·5	6	2·42	?
	Glasgow	58	46	52·1	− 1·6	3	0·72	−0·41
	Ardrossan	58	48	53·4	− 0·9	4	1·19	+0·16
	Silloth (Cumberland)	67	43	55·0	+ 0·2	3	0·69	−0·24
	Douglas (Isle of Man)	62	46	53·2	− 2·6	4	1·34	+0·55
7. ENGLAND, N.W.	Stonyhurst	66	45	54·0	− 2·1	3	0·43	−0·95
	Manchester	68	42	53·7	− 2·6	3	0·28	−0·74
	Liverpool Observatory (Bidston)	66	49	56·1	− 0·7	3	0·36	−0·71
	Holyhead	63	50	56·4	− 0·1	3	0·40	−0·47
8. ENGLAND, S.W.	Pembroke	65	51	56·4	− 1·0	4	0·66	−0·33
	Barnstaple							
	Falmouth	65	51	57·6	− 1·1	3	0·52	−0·23
	Plymouth	67	48	58·3	− 0·4	5	1·55	+0·47
	Prawle Point	66	48	57·2	− 1·4	5	0·21	?
9. IRELAND, N.	Londonderry	59	46	52·9	− 2·1	5	0·79	?
	Mullaghmore	61	48	53·7	− 1·0	4	1·00	?
	Brookeborough	63	43	52·6	− 2·1	4	0·80	?
	Armagh	60	44	52·9	− 2·2	4	0·46	−0·31
	Donaghadee	61	44	52·9	− 2·0	4	0·42	?
10. IRELAND, S.	Dublin	62	44	53·6	− 2·2	2	0·15	−0·42
	Kingstown	65	46	54·5	− 1·3	2	0·14	−0·51
	Parsonstown	62	43	52·8	− 2·2	3	0·32	−0·55
	Roche's Point	63	47	55·3	− 1·0	2	0·95	−0·23
	Valentia	62	47	55·2	− 0·6	4	0·82	−0·44
	Foynes	61	49	55·2	− 0·9	4	0·28	?
SCOTLAND, N.	Sumburgh Head	56	43	50·7	− 1·1	4	0·19	−0·31
	Stornoway	57	44	50·9	− 1·0	4	0·60	−0·48
	Wick	63	38	52·0	− 0·5	3	0·17	−0·51
——	Scilly (St. Mary's)	62	54	57·9	− 0·7	3	0·49	−0·60
	Jersey (Noirmont)	67	53	59·7	+ 0·2	5	0·44	−0·26

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

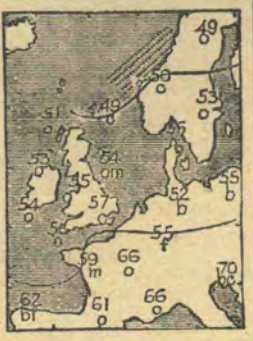
II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending September 22, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, September 16.

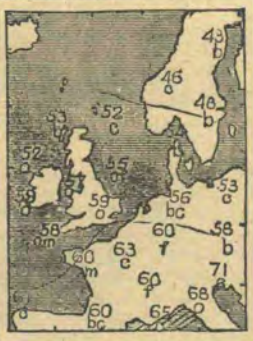
Weather very fine over the Netherlands and Denmark, cloudy or overcast elsewhere, with much fog or mist. Slight rain subsequently falling at our south-eastern stations.

Temperature very little changed, readings ranging from 60° at Dover to 50° at Nairn, and 49° in the Shetlands. Maxima between 60° and 65° at the southern and central stations, below 60° in the N.W. and N.

Wind light or moderate from N.W. to W. on the eastern shores of the North Sea, from E. over the greater part of England, Ireland, and the Channel, and from N. to N.W. over the Mediterranean. Calms reported in the N. No change later.

Sea nearly smooth.

Barometer falling over France, N. Germany, and S. England, rising over the northern half of the Kingdom and Scandinavia. Readings highest over the British Isles and North Sea. Pressure unchanged during day.



Wednesday, September 17.

Weather fine over Sweden, Denmark, and N. Germany, as well as at a few northern and eastern stations; cloudy and misty elsewhere. Slight rain occurring at a few southern stations later.

Temperature scarcely changing; readings varying over these Islands from 50° to 60°, slightly exceeding 60° over France, and rather below 50° over northern Scandinavia. Maxima generally between 60° and 65°.

Wind easterly over the North Sea, the greater part of these Islands, and the Channel, but south-westerly breeze appearing in Scotland. Light in force generally. Little change later.

Sea slight or smooth.

Barometer rising briskly over Scandinavia, and slightly over France, falling in these Islands. Pressure highest over Sweden, with arm of high readings stretching westward over us. Changing very little during day.

Thursday, September 18.

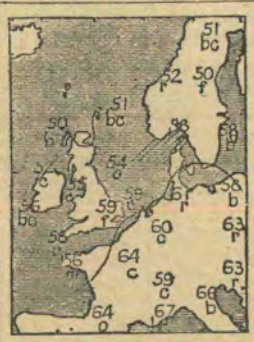
Weather fine at some of the French stations, but generally dull or cloudy; a good deal of fog or mist prevailing, and thunder reported from Shetland, Yarmouth, and Charleville. Slight rain subsequently falling in the E. and S.W.

Temperature unchanged, varying from 51° to 60° over these Islands. Maxima during the day between 60° and 65° generally.

Wind light or moderate from S.W. in the W. and N., and moderate from E. over the North Sea, but very variable elsewhere. Northerly breezes becoming general later.

Sea moderate at Scilly, nearly smooth on our other coasts.

Barometer changing very little. Readings highest over Sweden; low to the north-westward of Scotland, over the Netherlands and Bay of Biscay. Slight area of high pressure forming in the W. during day.



Friday, September 19.

Weather generally cloudy or dull, though locally fine in a few places; a good deal of fog and mist reported again, and rain from the Skager Rack and N. Germany. A little rain in the N. and W. of Scotland and Ireland later.

Temperature hardly changed; again varying from 50° to 60° over these Islands. Maxima during day between 55° and 60° in the N. and W., and between 60° and 65° in the S.

Wind northerly and light in force on most of our coasts, but backing slowly during the day, and fresh south-westerly breeze reported from Stornoway at 6 P.M.

Sea smooth.

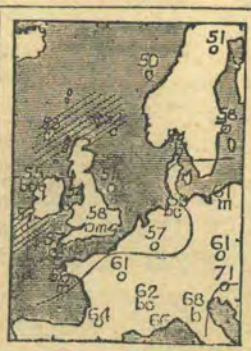
Barometer falling over Scandinavia, and rising over these Islands at 8 A.M., but slight fall appearing at Stornoway during the morning, and spreading to all but the S. of England later.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.



Saturday, September 20.

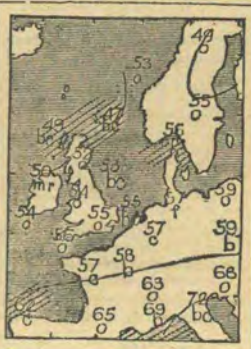
Weather fair over the Skager Rack and parts of Scotland, cloudy or dull generally, with much mist and fog in the S. Some rain in the W. and N. later, but weather fair in most places.

Temperature changes exceedingly slight; readings very uniform, ranging from 51° to 60° over Scandinavia, N. Germany, and these Islands, and from 60° to 66° over central and southern France. Maxima over these Islands between 59° and 69°.

Wind south-westerly to southerly on our coasts, fresh in force in the N.W., moderate or light elsewhere, veering to westward later in the day.

Sea rough at Valentia and to the northward of Scotland, moderate to smooth elsewhere.

Barometer rising slightly over France and N. Germany, falling in all other places—quickly in the N. Large depression to north-westward of Scotland. Slight recovery in Ireland later.



Sunday, September 21.

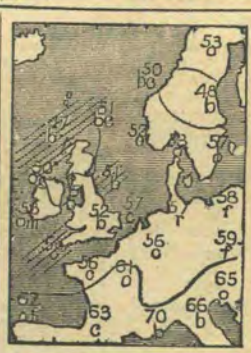
Weather fine in Scotland and the E. of England, still cloudy or dull generally; rain and mist in N. Ireland and showers reported from Jersey. Rain fell except in the S.E. of England, heavily in the N.W.

Temperature fallen in most places, and readings varying from 47° in the N. to 59° at Dover. Maxima low generally, ranging from about 54° in the N.W. to 62° or 63° in the S.E.

Wind westerly all over the British Isles, but drawing into S.W. on the eastern shores of the North Sea and into N.W. over France. Moderate at most stations, but strong in N. Scotland and in Norway.

Sea rough at Stornoway and Scilly, moderate to smooth elsewhere.

Barometer rising a little in N. Scotland and over central France, falling elsewhere. Large depression to the northward of Scotland. Subsidiary disturbance appearing in the N.W. later and barometer falling everywhere.



Monday, September 22.

Weather wet and overcast locally in the extreme N.E. of Scotland and W. and S.W. of Ireland, nearly clear in our other districts. Rain general later—heavy in the W.

Temperature fallen a little in most places, readings varying from 47° in the N.W. to 56° at Scilly. Maxima low, not exceeding 60° at any but our south-eastern stations.

Wind north-westerly on nearly all our own and the French coasts, but southerly on the eastern shores of the North Sea; fresh in the N. and W. light in the S.E. Wind backing to S. in the W. and rising to a moderate gale at Valentia.

Sea rather rough at Stornoway, Mullaghmore, and Scilly, moderate to smooth elsewhere.

Barometer risen slightly some parts of Scandinavia, fallen very generally. Pressure highest over Bay of Biscay, lowest off the N.E. of Scotland. Large disturbance advancing to our W. coast during day, and barometer falling very fast at Valentia.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—9/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 39.] WEEK ENDING MONDAY, SEPTEMBER 29, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	62	31	48	5 below.	3	5	4 less.
	2. ENGLAND, NORTH-EAST	63	34	50	5 below.	3	6	2 less.
	3. ENGLAND, EAST	67	37	52	5 below.	5	15	8 more.
	4. MIDLAND COUNTIES	64	35	52	5 below.	5	13	6 more.
	5. ENGLAND, SOUTH	66	37	54	3 below.	4	13	6 more.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	62	34	49	4 below.	5	15	2 more.
	7. ENGLAND, NORTH-WEST	60	35	51	5 below.	6	7	4 less.
	8. ENGLAND, SOUTH-WEST	62	42	54	3 below.	4	14	5 more.
	9. IRELAND, NORTH	60	32	49	4 below.	5	12	?
	10. IRELAND, SOUTH	63	37	53	2 below.	5	11	1 more.

General Remarks.

Weather generally dull and rainy at the commencement of the week but becoming fine on the 25th, and continuing so during the two following days; changing to cloudy and unsettled towards the close of the period. Very heavy rain in many parts of England and Ireland on the 23rd, and a considerable amount in some places on the 28th.

Temperature below the mean generally, the deficit varying from two degrees in "Ireland, S." to five degrees over the northern, eastern, and central parts of England and E. of Scotland. Maxima seldom reaching 65° even in the Midland Counties, and frequently below 60°. Minima below 40° on several occasions, and as low as 32° at Brookeboro' (Ireland, N.) on the 24th, and 31° at Glenalmond on the 24th and 27th. Slight ground frosts reported in other localities at times.

Rainfall less than the mean in "Scotland, E.," and "England, N.E. and N.W.," but more in all other districts. The excess not very great in "Scotland, W.," or Ireland, but amounting to as much as eight tenths of an inch over "England, E.," and to six tenths in the Midland Counties, the heavy amounts in these districts being largely due to the excessive fall which occurred on the 23rd and early morning of the 24th.

Wind generally from points between S. and W. Blowing a gale on the 23rd on most coasts, and in Ireland and Scotland on the night of the 27th, but moderate or fresh in force at other times.

The data from which the summary on the preceding page has been calculated are as follow:

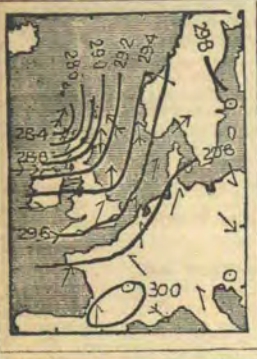
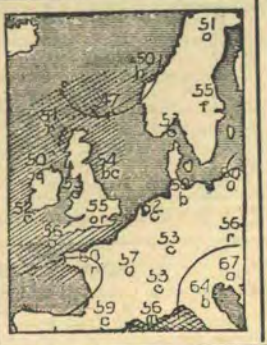
Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	57	35	48·0	− 3·5	4	0·36	−0·33
	Aberdeen	62	34	49·0	− 3·6	2	0·49	−0·34
	Glenalmond	56	31	44·2	− 8·4	4	1·05	?
	Leith	60	34	50·0	− 2·5	1	0·21	−0·39
2. ENGLAND, N.E.	Shields	60	39	50·1	− 3·7	2	0·45	−0·18
	Durham	63	34	49·0	− 5·2	2	0·02	−0·60
	York	62	36	49·0	− 5·7	2	0·22	−0·49
	Spurn Head	60	41	51·3	− 3·9	3	0·86	?
	Kelstern (Lincolnshire) ℳ	61	37	49·2	− 6·5	5	1·33	+0·68
3. ENGLAND, E.	Yarmouth	61	43	52·7	− 4·2	4	2·30	+1·54
	Cambridge	65	39	52·4	− 4·2	5	1·13	+0·58
	Audley End (Saffron Walden) ℳ	67	40	51·4	− 5·2	5	1·54	+0·89
	Rothamsted	65	37	52·1	− 4·2	5	1·00	+0·30
4. MIDLAND COUNTIES	Nottingham	64	35	50·5	− 4·8	5	1·63	+0·91
	Loughborough	63	36	50·6	− 4·8	5	1·49	+0·75
	Leicester	61	39	54·3	− 1·8	5	1·49	+0·84
	Shrewsbury ℳ	60	36	50·8	− 5·2	5	1·07	+0·40
	Hereford ℳ	62	37	51·3	− 5·1	4	0·83	+0·01
	Cirencester	62	37	50·8	− 6·0	5	1·32	+0·44
	Oxford	63	40	52·7	− 4·0	4	1·33	+0·62
5. ENGLAND, S.	London	65	39	54·0	− 2·9	4	1·71	+1·06
	Marlborough ℳ	65	39	53·2	− 3·6	6	1·17	+0·24
	Strathfield Turgiss ℳ	66	37	53·8	− 3·2	3	1·04	+0·34
	Dover	61	44	53·9	− 3·7	4	1·45	+0·73
	Hastings	62	41	54·0	− 3·6	4	1·38	+0·65
	Hurst Castle	62	45	55·4	− 1·9	5	0·81	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	60	40	50·9	− 0·9	7	2·89	?
	Glasgow	56	36	48·2	− 4·1	5	0·84	−0·26
	Ardrossan	58	38	50·7	− 2·3	6	1·43	+0·39
	Silloth (Cumberland)	62	34	49·0	− 4·6	5	1·42	+0·47
	Douglas (Isle of Man)	57	35	47·0	− 7·7	4	0·92	+0·12
7. ENGLAND, N.W.	Stonyhurst	56	38	48·4	− 6·4	7	0·98	−0·43
	Manchester	59	35	49·4	− 5·5	5	0·45	−0·61
	Liverpool Observatory (Bidston)	59	43	51·4	− 4·2	5	0·56	−0·52
	Holyhead	60	45	53·1	− 2·1	6	0·73	−0·19
8. ENGLAND, S.W.	Pembroke	59	45	53·7	− 2·5	6	1·38	+0·36
	Barnstaple							
	Falmouth	61	46	54·4	− 3·0	3	1·71	+0·92
	Plymouth	62	42	53·9	− 3·9	3	1·25	+0·19
	Prawle Point	62	43	54·0	− 3·7	3	1·18	?
9. IRELAND, N.	Londonderry	57	38	48·8	− 4·8	6	1·13	+0·20
	Mullaghmore	58	40	50·6	− 3·7	6	2·52	?
	Brookeborough	60	32	48·4	− 4·8	3	0·91	?
	Armagh	58	38	49·0	− 4·7	4	0·72	−0·06
	Donaghadee	58	39	49·8	− 3·7	4	0·58	?
10. IRELAND, S.	Dublin	62	42	52·0	− 2·7	4	0·22	−0·38
	Kingstown	63	42	53·6	− 1·1	4	0·16	−0·53
	Parsonstown	61	37	50·7	− 3·1	6	0·96	+0·09
	Roche's Point	60	43	53·3	− 1·8	6	2·38	+1·20
	Valentia	60	44	53·7	− 1·1	6	1·32	−0·01
	Foynes	60	41	51·9	− 3·1	6	1·41	?
SCOTLAND, N.	Sumburgh Head	55	40	48·5	− 2·3	6	1·37	+0·84
	Stornoway	53	40	47·7	− 3·1	6	0·98	−0·13
	Wick	56	35	48·7	− 2·5	2	0·28	−0·40
——	Scilly (St. Mary's)	63	47	55·6	− 2·2	5	1·14	+0·03
	Jersey (Noirmont)	62	47	56·3	− 2·0	4	2·12	+1·37

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending September 29, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, September 23.

Weather stormy and unsettled, still fine in E. Scotland and the N.E. of England, cloudy or dull elsewhere, with rain in the S. and S.E. Heavy rain all day generally; 1·25 in. falling in London and 1·8 in. at Yarmouth.

Temperature fallen E. France and N. Germany, risen a few degrees elsewhere; readings ranging from 57° on our S. coast to 47° in the Shetlands and 49° at Donaghadee. Maxima between 55° and 65°.

Wind westerly over Ireland, south-westerly over the Channel and England, and southerly in Scotland. Gales in most places during past night, moderate to fresh gales still blowing over Ireland and England and hard gales in Scotland. Falling lighter during day.

Sea high N. and rough, except on the E. coast of England.

Barometer risen a little over N. Germany, fallen elsewhere, exceedingly quickly over Scotland. Readings highest over central France, with very deep disturbance to the north-westward of Scotland. Pressure recovering briskly in N., but fresh depression appearing in S.W. later.

Wednesday, September 24.

Weather fine over Scotland, cloudy or dull elsewhere, with rain over the E. and S.W. of England. Heavy showers in several places during the day; slight thunderstorm in N. London.

Temperature lower than on 23rd generally, uniform over these Islands, ranging from a little over 50° on our S. coast to 43° in the N. and N.W. Maxima between 50° and 60° generally.

Wind westerly over the greater part of these Islands, the Channel, and France, but a northerly breeze reported locally from the E. of England, and southerly winds all along the eastern shores of the North Sea. Gale over the Bay of Biscay later.

Sea high off Ushant, rough in the S. and N.

Barometer rising quickly over the northern parts of these Islands, falling elsewhere. Readings high over S. France and in Sweden, with large depression to northward of Scotland, and shallow subsidiary disturbances over England. Barometer rising everywhere later.

Thursday, September 25.

Weather fine over nearly the whole of Great Britain and the W. and N. of France, but cloudy or dull elsewhere. Rain falling at Holyhead and in W. Ireland. Weather fine all day, except in the W.

Temperature risen a little Ireland, fallen in most other places. Readings varying from 41° at Nairn to 55° at Scilly. Maxima between 55° and 60° generally.

Wind westerly to south-westerly all over this country, the North Sea, and Scandinavia, but easterly at Rochefort. Strong in the N. and N.W., light or moderate elsewhere. Wind backing in the N.W. later, and freshening at some stations.

Sea rough in the W., moderate to slight elsewhere.

Barometer rising briskly generally. Readings highest over France and lowest off the W. coast of Norway, but with a small subsidiary disturbance over the North Sea. Pressure increasing all day.

Friday, September 26.

Weather cloudy and showery in S. Ireland, and overcast over the greater part of Scandinavia; fine elsewhere. Fine all day in most places, but slight rain falling over S. Ireland and England in the evening.

Temperature higher over these Islands and lower on the Continent than on 25th. Readings uniform between 47° and 57°. Maxima between 55° and 65°.

Wind westerly on our western and northern coasts southerly in the countries to the eastward of the North Sea, and easterly over the Bay of Biscay. Fresh at some western stations, moderate or light generally. No change later.

Sea rather rough off Valentia and the Shetlands, nearly smooth elsewhere.

Barometer rising over the whole of western Europe. Readings highest over France, and lowest to the northward of Scotland. Slight depression apparently traversing the S. of England during day and evening, but effects exceedingly slight.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, September 27.

Weather dull on our western and north-western coasts, but fine over the greater part of these Islands, the W. and N. of France, and N. Germany. Rather heavy rain in W. during day and following night, but weather fine in E.

Temperature risen a little in the W., fallen considerably in the E., ranging from 57° in the S.W. to 39° at Nottingham and 41° at Nairn. Maxima between 55° and 65°.

Wind southerly in the W. and N., westerly over England, and drawing into N. over France. Fresh in force in the W. of Ireland, and blowing a gale at Rochefort; generally moderate elsewhere. Gale in Ireland and Scotland at night.

Sea rough off the W. of Ireland and at Stornoway, moderate to smooth elsewhere.

Barometer falling over France and our S.W. coasts, rising elsewhere. Large area of high pressure lying over France and southern England. Barometer falling all day, and large depression appearing on our W. coasts.

Sunday, September 28.

Weather very unsettled and dull over the whole of western Europe, rain falling in the N. and W., and thunder reported from Stornoway. Rain at all stations during the day.

Temperature fallen a little in the extreme W., risen elsewhere, rapidly in the N.E. Readings ranging from 47° in the N. to 59° in the S.W. Maxima between 55° and 65°.

Wind north-westerly on the W. coast of Ireland, south-westerly generally, moderate to fresh in force in most places, but blowing a slight gale in the Irish Sea and a fresh gale at Scilly. North-westerly wind extending eastward later.

Sea rough at some western stations, moderate to slight elsewhere.

Barometer falling everywhere, large depression lying to the northward of Scotland, with small subsidiary disturbances over the northern and central parts of Ireland. Depressions subsequently moving south-eastward and barometer rising.

Monday, September 29.

Weather very fine over nearly the whole of these Islands, but cloudy or dull on our extreme S.E. coasts and over the Continent generally. Rain falling in the N.W. and S.E. later.

Temperature considerably lower over these Islands than on the 28th, but higher on the Continent. Readings varying from 51° in the Shetlands and 55° in the S. to 40° at York. Maxima between 55° and 65°.

Wind westerly on our western and northern coasts, but northerly over England and the Channel. Moderate or light generally, but fresh in the N.W. and at Scilly. Little change later.

Sea moderate to smooth except off Hurst Castle.

Barometer still falling on our S.E. coast and on the Continent, but rising elsewhere. Pressure highest in the S., lowest in the N., but small subsidiary disturbances over Channel. Barometer rising all day, and readings uniform.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⋙⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

Meteorological Office,
116, Victoria Street, S.W.

(Signed) ROBERT H. SCOTT,
Secretary.

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[48.—150.—10/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL:
AND E. STANFORD, CHARING CROSS.

VOL. II. No. 40.] WEEK ENDING MONDAY, OCTOBER 6, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	64	33	49	2 below.	3	5	1 less.
	2. ENGLAND, NORTH-EAST	66	31	50	3 below.	4	3	4 less.
	3. ENGLAND, EAST	66	39	53	2 below.	4	6	1 less.
	4. MIDLAND COUNTIES	68	33	52	3 below.	4	6	1 less.
	5. ENGLAND, SOUTH	67	39	55	1 below.	3	5	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	65	34	50	1 below.	4	9	3 less.
	7. ENGLAND, NORTH-WEST	64	35	51	3 below.	4	10	1 less.
	8. ENGLAND, SOUTH-WEST	66	40	55	2 below.	4	4	6 less.
	9. IRELAND, NORTH	64	39	50	2 below.	4	8	?
	10. IRELAND, SOUTH	65	39	52	1 below.	4	5	6 less.

General Remarks.

Weather generally cloudy and rainy during the early part of the week, but extremely fine in all places by the close of the time. Heavy dews and local morning fogs at many stations on the 5th and 6th.

Temperature a little below the mean in all districts. Thursday the 2nd October was the coolest day, maximum being below 60° in almost all parts of the country and below 55° at many stations; by end of week maxima ranging from 65° to 68° were registered in the Midland Counties and "England, S." Some slight ground frosts were reported on one or two occasions.

Rainfall less than the mean generally, the deficit varying from one tenth of an inch in the more northern and eastern districts to five or six tenths in the south-west. All the rain fell during the first three or four days, the remainder of the week being perfectly dry.

Wind at first easterly over England and southerly over Ireland and Scotland; the southerly or westerly current subsequently extending over us and blowing strongly in the west and north. On the 5th the wind was anti-cyclone, being easterly in the south, southerly in the west, and westerly in the north, and had become light or moderate in force everywhere.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	61	40	50·6	+ 0·7	2	0·11	−0·53
	Aberdeen	63	35	48·7	− 2·1	2	1·16	+0·35
	Glenalmond	63	33	45·9	− 5·1	3	0·38	?
	Leith	64	37	50·9	− 0·2	4	0·40	−0·14
2. ENGLAND, N.E.	Shields	63	36	49·3	− 3·1	3	0·14	−0·48
	Durham	66	31	50·1	− 2·6	3	0·05	−0·62
	York	65	31	50·6	− 2·7	4	0·27	−0·43
	Spurn Head	60	42	51·6	− 2·4	4	0·36	?
	Kelstern (Lincolnshire) ℳ	62	38	50·4	− 3·7	4	0·70	+0·01
3. ENGLAND, E.	Yarmouth	62	42	54·0	− 1·3	4	0·50	−0·24
	Cambridge	66	40	53·0	− 2·0	3	0·41	−0·13
	Audley End (Saffron Walden) ℳ	66	39	? 51·3	− 3·9	5	0·77	+0·13
	Rothamsted	65	39	52·9	− 2·0	5	0·53	−0·19
4. MIDLAND COUNTIES	Nottingham	68	33	51·3	− 2·4	4	0·58	−0·12
	Loughborough	67	33	51·8	− 1·9	4	0·45	−0·27
	Leicester	64	35	52·0	− 2·5	4	0·70	+0·06
	Shrewsbury ℳ	62	33	49·1	− 5·6	4	0·56	−0·12
	Hereford ℳ	64	35	51·7	− 3·5	5	0·68	−0·14
	Cirencester	62	36	51·5	− 3·9	3	0·72	−0·11
	Oxford	65	40	53·2	− 2·0	4	0·67	−0·03
5. ENGLAND, S.	London	67	39	55·8	+ 0·6	2	0·23	−0·43
	Marlborough ℳ	67	40	53·7	− 1·7	3	0·81	−0·11
	Strathfield Turgiss ℳ	67	39	53·9	− 1·6	2	0·38	−0·32
	Dover	62	45	55·9	− 0·3	3	0·13	−0·60
	Hastings	62	41	55·2	− 1·0	3	0·74	−0·03
	Hurst Castle	63	47	56·3	+ 0·3	3	0·41	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	61	39	50·4	+ 0·2	5	1·56	?
	Glasgow	59	40	49·7	− 1·1	4	0·73	−0·34
	Ardrossan	60	40	50·7	− 0·6	4	0·59	−0·45
	Silloth (Cumberland)	65	34	51·4	− 0·9	4	0·83	−0·12
	Douglas (Isle of Man)	59	37	50·5	− 2·7	4	0·73	−0·13
7. ENGLAND, N.W.	Stonyhurst	60	35	50·3	− 3·0	4	2·00	+0·57
	Manchester	64	39	49·6	− 3·7	4	1·10	+0·03
	Liverpool Observatory (Bidston)	61	41	51·4	− 2·9	4	0·48	−0·61
	Holyhead	62	45	53·2	− 0·9	5	0·50	−0·52
8. ENGLAND, S.W.	Pembroke	61	45	53·6	− 1·1	4	0·13	−0·90
	Barnstaple	66	43	55·7	− 0·1	4	0·58	−0·62
	Falmouth	60	46	54·3	− 2·1	4	0·57	−0·28
	Plymouth	64	40	54·3	− 2·7	3	0·57	−0·45
	Prawle Point	63	46	55·2	− 1·4	3	0·35	?
9. IRELAND, N.	Londonderry	63	42	50·2	− 1·8	5	0·94	−0·05
	Mullaghmore	64	42	51·3	− 0·8	4	1·18	?
	Brookeborough							
	Armagh	59	39	50·2	− 2·1	4	0·31	−0·49
	Donaghadee	58	41	49·8	− 2·2	4	0·75	?
10. IRELAND, S.	Dublin	60	42	51·9	− 1·3	5	0·28	−0·38
	Kingstown	62	43	53·0	− 0·4	5	0·21	−0·50
	Parsonstown	64	39	51·2	− 1·2	3	0·29	−0·57
	Roche's Point	61	43	52·6	− 1·2	2	0·46	−0·69
	Valentia	65	45	53·7	− 0·0	4	0·81	−0·62
	Foynes	65	41	51·4	− 2·1	3	0·71	?
SCOTLAND, N.	Sumburgh Head	55	41	48·4	− 1·1	5	1·32	+0·76
	Stornoway	55	40	47·4	− 2·2	5	0·80	−0·32
	Wick	61	40	50·2	+ 0·4	2	0·22	−0·46
——	Scilly (St. Mary's)	62	50	56·4	− 0·3	3	0·44	−0·68
	Jersey (Noirmont)	64	50	57·2	0·0	2	0·15	−0·64

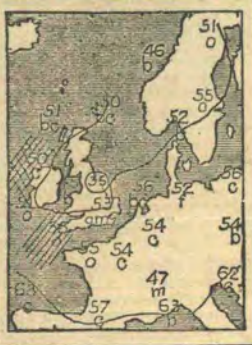
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending October 6, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, September 30.

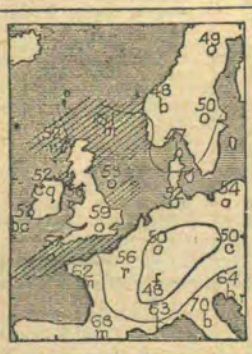
Weather dull over the W. and N. of France, the S.W. of England, and S. of Ireland, fine elsewhere. Rain falling subsequently over nearly the whole country.

Temperature risen over Scotland, our S.E. coast stations, and over France and the Netherlands, fallen elsewhere. Readings low, central England, ranging from 35° at York, to 52° at Wick and 57° at Dover. Maxima between 55° and 65°.

Wind easterly over England, southerly over Ireland and Scotland. Light or moderate in force in most places, but freshening at Mullaghmore and Stornoway. Wind veering later, and southerly breezes reported from most coasts.

Sea high at Mullaghmore and rough at Scilly, moderate to smooth elsewhere.

Barometer falling somewhat in the S. and S.W., rising elsewhere. Decrease of pressure becoming general later, and brisk in the S.W. Readings highest on the eastern shores of the North Sea, lowest off our N.W. coasts.



Wednesday, October 1.

Weather fair in the S. and E. of Ireland, cloudy or dull in nearly all other places, with rain over central and south-eastern England. Weather improving later and sky nearly clear in evening.

Temperature risen everywhere—rapidly over central England. Readings uniform, ranging from 52° in the N. and N.W., to 59° in the S.E. Maxima again between 55° and 65° generally.

Wind westerly over the S. of Ireland and western half of the Channel, southerly to south-easterly over the E. of England, and southerly in Scotland. Fresh to strong generally, and blowing a gale at Aberdeen and Sumburgh Head. Wind veering to W. later.

Sea high at Stornoway, rough in the N., N.E., and S.

Barometer falling briskly everywhere, change amounting to 0·5 in. over Scotland and E. of England. Large depression lying off the N.W. coast of Scotland, and small subsidiary disturbance over England. Both travelling north-eastward later.

Thursday, October 2.

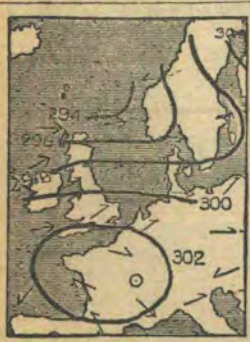
Weather fine at most of our eastern and northern stations as well as in E. Ireland; more or less cloudy elsewhere. Rain falling at a few stations, and hail at Valentia. Weather fair in evening.

Temperature fallen several degrees over these Islands and France, risen over Norway and Denmark. Readings uniform, ranging from 42° at Nairn to 56° at Hurst Castle. Maxima nowhere above 60° within the British Isles.

Wind westerly in the S.W., south-westerly to southerly elsewhere. Fresh in force in the S.W., W., and N. Veering somewhat later, and generally westerly in direction.

Sea high at Stornoway, rough in the W. and S.W.

Barometer falling at our north-western stations as well as over the whole of Scandinavia; rising elsewhere. Readings highest over France and lowest to the north-westward of Scotland, but small disturbances shown over central England and the S. of Norway.



Friday, October 3.

Weather fine in the S. and S.E. of England and E. of Scotland, dull elsewhere, with rain in the N.W. and in the Shetlands. Weather fair in the S.E. and N.E. all day, but slight rain falling elsewhere.

Temperature risen in the W. and N., fallen in nearly all other places. Readings ranging from 47° in the N.E. to 56° in the S.W. Maxima low, exceeding 60° only at Kingstown, Scilly, and in London.

Wind easterly in the S.W. of France, but westerly to south-westerly over these Islands and the North Sea, and southerly in Sweden. Moderate generally, but strong in the extreme N. No change during the day.

Sea rough S.W., W., and N.

Barometer still falling over Scandinavia, rising in all parts of these Islands and France, except our N.W. coasts, where a rather brisk fall had commenced. This fall was not very important, and in the evening the barometer was rising, except in the E.

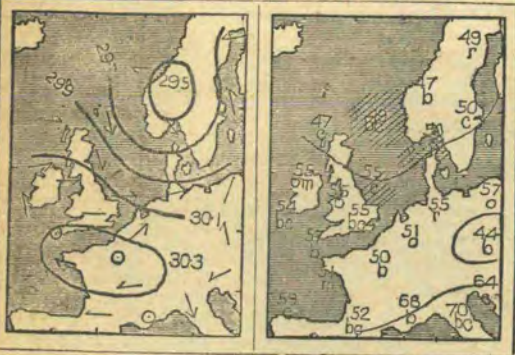
(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, October 4.

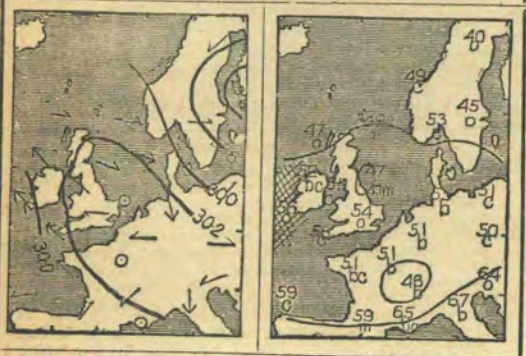
Weather fine over France and our more southern stations, as well as in E. Scotland, dull elsewhere. Rain falling at Spurn Head and over N. Germany. The only rainfall reported was at Valentia.

Temperature higher over Great Britain, lower in the S.W. of Ireland and on the Continent generally. Readings ranging from 47° in the Hebrides to 57° in Scilly. Maxima between 55° and 65°.

Wind easterly over France, southerly at Valentia, and westerly at all our other stations and over the North Sea. Moderate to fresh in force. During the day the southerly wind extended to Scilly and Mullaghmore, and increased to a strong breeze at Valentia.

Sea moderate to slight round our coasts, except at Sumburgh Head and Spurn Head.

Barometer falling over the W. of France and over Scandinavia, rising over these Islands. Large anticyclone over France and our southern stations, depression near Christiansund. Barometer falling in S.W. later.



Sunday, October 5.

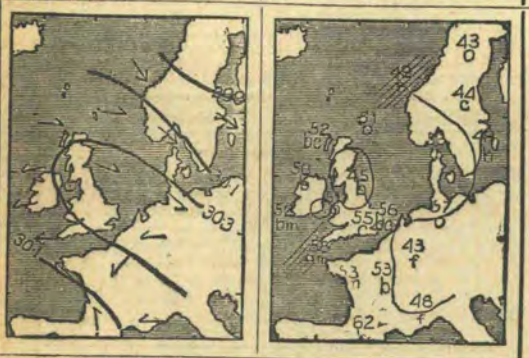
Weather threatening in S. Ireland, and dull and rainy in the extreme N. and over Scandinavia, very fine elsewhere. Mist in several places. Weather fine in nearly all places during day, the only rain reported being from Holyhead and Kingstown.

Temperature has fallen briskly over north-eastern and central England, risen in most other places, readings ranging from 47° at Stornoway and Shields, to 55° at Wick and 58° at Scilly. Maxima between 55° and 65°.

Wind easterly over France, south-easterly on our western coasts, and westerly in the N. and on the eastern shores of the North Sea. Blowing freshly in the S.W. and W., and reaching a gale at Valentia. Little change later, but cessation of gale.

Sea high at Valentia, moderate to smooth elsewhere.

Barometer rising at our northern and eastern stations, and the countries to the eastward of the North Sea, falling on our W. and S.W. coasts,—briskly at Valentia. Rising at all stations later. Anticyclone over British Isles.



Monday, October 6.

Weather dry in all parts of western Europe except Christiansund, fine and bright in most places, but with a good deal of cloud and mist over England. Exceedingly fine all day, but heavy dew and fog at night.

Temperature fallen in N. and N.W. as well as over the Netherlands, risen elsewhere. Readings ranging from 41° at Leith, to 52° at Stornoway and 58° at Scilly. Maxima between 60° and 65°, except at some northern and north-western stations.

Wind easterly in the S. and westerly in the N., with calms in the intervening space. Blowing freshly in the S., but light on all our other coasts. Little change later.

Sea moderate to smooth, except at Scilly.

Barometer rising, except over France. Large anticyclone still shown over these Islands, the North Sea, and Netherlands, with low readings over the Gulf of Bothnia and N. Spain. No change during day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[48.—150.—10/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 41.] WEEK ENDING MONDAY, OCTOBER 13, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	66	31	49	1 below.	2	2	5 less.
	2. ENGLAND, NORTH-EAST	?63	34	49	3 below.	1	less than ½	7 less.
	3. ENGLAND, EAST	60	33	48	5 below.	2	less than ½	6 less.
	4. MIDLAND COUNTIES	60	36	48	5 below.	1	less than ½	7 less.
	5. ENGLAND, SOUTH	66	34	51	4 below.	1	less than ½	7 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	58	38	49	2 below.	2	less than ½	9 less.
	7. ENGLAND, NORTH-WEST	63	40	50	2 below.	2	less than ½	12 less.
	8. ENGLAND, SOUTH-WEST	70	36	54	1 below.	0	—	10 less.
	9. IRELAND, NORTH	66	33	49	1 below.	2	1	?
	10. IRELAND, SOUTH	67	37	51	1 below.	2	less than ½	10 less.

General Remarks.

Weather generally fair and dry, but a great deal of fog and gloom over England and Ireland during the latter part of the week. Temperature below the mean everywhere, but the deficit not large except in "England, E.," and the Midland Counties. The maxima at the commencement of the week were tolerably high, but at its close they were below 55° in many parts of the kingdom and even below 50° at some of the English stations. The lowest minima were observed about the 10th or 11th, and on the former day the thermometer exposed on the grass at Strathfield Turgiss fell to 21° or eleven degrees below the freezing point.

Rainfall excessively slight, the amounts given in the above table being almost entirely composed of heavy dew or wet fog. A small amount was, however, measured in Scotland on the 13th.

Wind generally easterly in the south and westerly in the north, with calms or light variable airs at the more central stations. The westerly breeze freshening in the north at the close of the week.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	60	40	50·3	+ 1·9	1	0·30	−0·29
	Aberdeen	64	35	48·5	− 0·7	2	0·06	−0·72
	Glenalmond	66	31	46·9	− 2·3	2	0·19	?
	Leith	61	37	48·3	− 0·9	2	0·12	−0·38
2. ENGLAND, N.E.	Shields	61	?42	50·1	− 0·8	3	0·05	−0·54
	Durham	?63	34	?489	− 2·3	1	0·03	−0·65
	York	62	38	48·4	− 2·8	2	0·03	−0·66
	Spurn Head	56	45	49·6	− 2·2	1	0·01	?
	Kelstern (Lincolnshire) ℳ	58	37	47·7	− 4·9	0	—	−0·76
3. ENGLAND, E.	Yarmouth	58	43	49·6	− 3·6	2	0·02	−0·68
	Cambridge	60	34	48·6	− 4·6	1	0·01	−0·51
	Audley End (Saffron Walden) ℳ	?57	33	47·1	− 6·2	0	—	−0·60
	Rothamsted	59	34	46·8	− 6·3	5	0·07	−0·63
4. MIDLAND COUNTIES	Nottingham	58	37	48·9	− 3·3	1	0·01	−0·68
	Loughborough	60	37	48·7	− 3·0	0	—	−0·70
	Leicester	58	40	49·2	− 3·6	2	0·02	−0·59
	Shrewsbury ℳ	56	42	49·0	− 4·0	1	0·01	−0·68
	Hereford ℳ	56	36	47·3	− 6·6	2	0·02	−0·77
	Cirencester	60	36	47·5	− 6·4	0	—	−0·81
	Oxford	57	37	47·4	− 6·4	4	0·06	−0·61
5. ENGLAND, S.	London	66	37	49·7	− 4·0	1	0·01	−0·64
	Marlborough ℳ	62	34	47·9	− 5·9	3	0·03	−0·84
	Strathfield Turgiss ℳ	66	36	48·2	− 5·6	1	0·06	−0·62
	Dover	63	48	54·5	− 0·2	0	—	−0·73
	Hastings	61	42	51·7	− 3·1	2	0·03	−0·71
	Hurst Castle	62	43	50·9	− 3·7	0	—	?
6. SCOTLAND, W.	Laudale (Loch Sunart)							
	Glasgow	56	40	47·9	− 1·2	1	0·07	−0·94
	Ardrossan	55	39	48·3	− 1·5	2	0·03	−1·00
	Silloth (Cumberland)	58	38	48·9	− 2·0	1	0·04	−0·89
	Douglas (Isle of Man)	57	39	49·1	− 2·6	3	0·03	−0·87
7. ENGLAND, N.W.	Stonyhurst	59	40	48·7	− 3·2	4	0·04	−1·39
	Manchester	63	42	49·1	− 2·8	2	0·03	−1·02
	Liverpool Observatory (Bidston)	58	44	50·1	− 2·8	1	0·01	−1·08
	Holyhead	57	49	52·5	− 0·3	1	0·01	−1·12
8. ENGLAND, S.W.	Pembroke	64	47	52·2	− 1·2	0	—	−1·04
	Barnstaple	70	36	53·7	− 1·0	0	—	−1·23
	Falmouth	60	48	54·5	− 0·9	0	—	−0·90
	Plymouth	64	40	53·8	− 1·9	0	—	−0·98
	Prawle Point	62	46	53·8	− 1·6	0	—	?
9. IRELAND, N.	Londonderry	59	41	48·9	+ 0·2	3	0·07	−0·99
	Mullaghmore	62	44	50·1	− 0·6	3	0·08	?
	Brookeborough	66	33	48·2	− 2·2	1	0·02	?
	Armagh	53	37	47·0	− 3·8	3	0·05	−0·76
	Donaghadee	55	44	49·6	− 0·7	1	0·01	?
10. IRELAND, S.	Dublin	54	44	49·3	− 2·8	3	0·04	−0·66
	Kingstown	54	43	49·4	− 2·7	5	0·06	−0·66
	Parsonstown	62	37	49·9	− 1·1	0	0·01	−0·83
	Roche's Point	60	43	51·7	− 0·7	0	—	−1·10
	Valentia	64	41	51·4	− 1·1	1	0·01	−1·53
	Foynes	67	39	53·4	+ 2·6	1	0·01	?
SCOTLAND, N.	Sumburgh Head	53	46	49·9	+ 1·8	4	0·34	−0·24
	Stornoway	55	38	48·6	+ 0·4	2	0·32	−0·79
	Wick	58	36	48·2	− 0·2	1	0·21	−0·48
——	Scilly (St. Mary's)	61	49	56·0	+ 0·5	0	—	−1·12
	Jersey (Noirmont)	64	50	55·8	0·0	0	—	−0·81

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

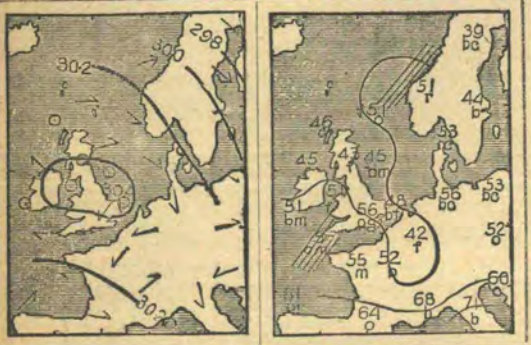
Note.—The above "Rainfall" values are composed almost entirely of heavy dews or wet fogs, the only rainfall occuring during the week being a small amount in Scotland.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending October 13, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, October 7.

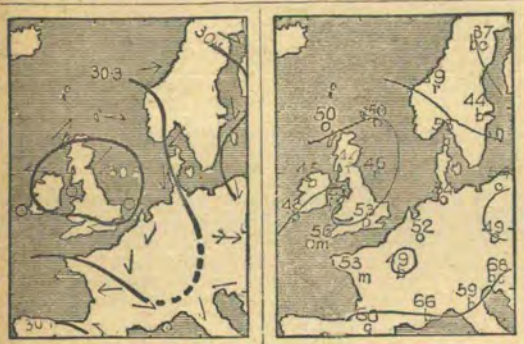
Weather overcast or cloudy on the eastern shores of the North Sea, fine over the rest of western Europe, though with a great deal of fog and mist over England. Very fine all day.

Temperature fallen a little in most places, readings low at the northern and central stations, ranging from 40° at Aberdeen to 51° in the Shetlands and 57° at Scilly. Maxima between 55° and 65°.

Wind easterly in the S. and westerly in the N. Strong over the western half of the Channel and Bay of Biscay, but very light on most of our coasts. Little change later.

Sea slight or smooth, except at Scilly, where it was rather rough.

Barometer rising slowly over the whole of western Europe. Large anticyclone lying over these Islands, the North Sea, N. Germany, and the N.E. of France. Pressure increasing all day.



Wednesday, October 8.

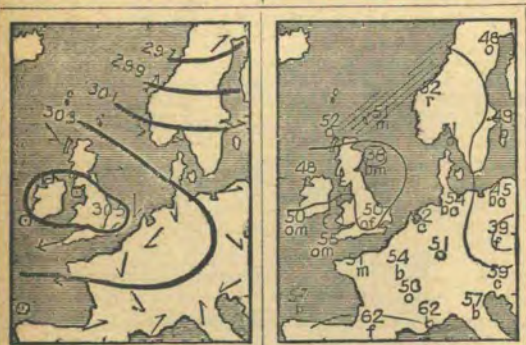
Weather still fine over the greater part of western Europe, but sky overcast in Scotland with rain in Norway. A great deal of fog and mist over England. Weather rather dull all day, but no rain falling.

Temperature risen slightly N., fallen a little W., and changed irregularly elsewhere. Readings ranging from 45° at York to 50° in N. Scotland and 56° at Scilly. Maxima low, below 60° at most stations and below 50° at Leith and Nottingham.

Wind still easterly in the S. and westerly in the N., fresh or strong in force in the S., light elsewhere. Little change during the day.

Sea slight or smooth on nearly all coasts.

Barometer still rising slowly in all places; anticyclone still lying over these Islands and the North Sea and scarcely any change taking place during the day.



Thursday, October 9.

Weather rather cloudy or dull in most places, with a great deal of fog and mist in the W. and S. Cloudy and foggy generally during the day, but no rain falling.

Temperature fallen a little at most stations, ranging from 38° at Aberdeen, to 52° in the Hebrides, and 55° at Scilly. Maxima again very low, below 60°, except at a few north-eastern stations.

Wind still easterly (N.E. to S.E.) in the S. and westerly (S.W. to N.W.) in the N.; light in force on most of our coasts, strong over France and Norway. Wind veering towards N. at most of our stations later.

Sea rough near the Shetlands, slight or smooth elsewhere.

Barometer rising in Ireland and the W. of England, falling elsewhere—quickly at Christiansund. Anticyclone still shown over us, but centre moving westward over Ireland.

Friday, October 10.

Weather cloudy or dull over the whole of these Islands and their neighbourhood, with much mist and fog in the S. Weather cloudy but dry all day. No rain falling within these Islands.

Temperature risen a little in Scotland, fallen elsewhere. Readings ranging from 39° at York and 41° in London, to 53° at Nairn and 50° at Scilly. Maxima a little above 60° at York, Aberdeen, and Nairn, between 50° and 60° elsewhere.

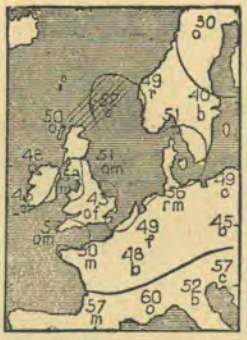
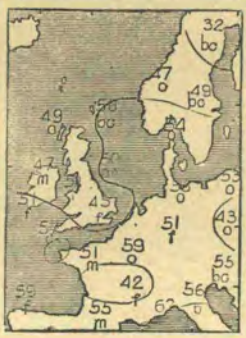
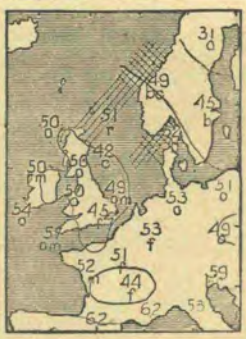
Wind westerly on our northern coasts, northerly on the eastern shores of the North Sea, and north-easterly to easterly over France. Light on our coasts, but fresh over N. Germany and the Bay of Biscay. Wind veering to N.W. in Scotland.

Sea slight to smooth on our coasts.

Barometer falling quickly over Sweden, and very slowly over these Islands, almost unchanged elsewhere. Anticyclone still shown over us with its centre over Ireland. Pressure decreasing a little in N.E. during day.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		**Saturday, October 11.** *Weather* locally fine in a few places, but generally cloudy or dull, with much fog and mist. Rain in Norway. Weather foggy and rather dull over these Islands all day, but no rain. *Temperature* fallen in nearly all places; readings ranging from 40° at Oxford, to 52° in the Shetlands, and 57° at Scilly,—low over the whole of Central England. Maxima between 55° and 60° generally. *Wind* moderate to fresh from E. over France, the Channel, and our southern stations, light from W. in the N., and fresh from N. on the eastern shores of the North Sea. *Sea* slight or smooth. *Barometer* rising slowly in nearly all places; anticyclone still holding over these Islands and their neighbourhood, with comparatively low pressures reported from the Mediterranean and Lapland. Scarcely any change during day.
		**Sunday, October 12.** *Weather* fine over the W. and S. of France, cloudy or dull in all other parts of western Europe, with thick fog or mist over Ireland and the S.E. and E. of England. Very slight rain subsequently falling in N.W. and N. *Temperature* changing little and irregularly, low over the N.W. of France and south-eastern and central England. Readings ranging from 43° at Hurst Castle to 50° at Wick and 57° at Scilly. Maxima very low S.E. *Wind* light from the westward on our northern coasts, strong from N.W. over Scandinavia and Denmark, and strong to light from E. over France and the Channel. Scarcely any change during the day. *Sea* slight to calm, except at Sumburgh Head. *Barometer* falling slightly in the Hebrides and Shetlands, and briskly over the Baltic, rising elsewhere. Anticyclone still shown over these Islands but beginning to give way and depression advancing to our northern coasts during day.
		**Monday, October 13.** *Weather* fine S. and W. of France, cloudy or dull in nearly all other places, with fog and drizzle in the S.E. of England and over the E. of France. Slight rain over Ireland and Scotland later, but weather dry though dull generally. *Temperature* changed little and irregularly. Readings rather below 50° over the inland parts of England and France, slightly above on the coasts. Maxima between 50° and 60°, very low in the S.E. *Wind* westerly at all the more northern stations and easterly in the south, with a northerly gale at Christiansund. Blowing freshly in N. Scotland and over the North Sea. No change during day. *Sea* high at Skagen and Christiansund, rough at Sumburgh Head. *Barometer* falling over the whole of western Europe, quickly over Scandinavia and N. Scotland, and slowly elsewhere. Band of high pressure still shown over Ireland and England, with large depression over the Baltic. Recovery commencing in N. later.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
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The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

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2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	58	30	44	3 below.	5	5	0 (average).
	2. ENGLAND, NORTH-EAST	59	31	46	5 below.	5	5	2 less.
	3. ENGLAND, EAST	64	32	47	5 below.	6	5	1 less.
	4. MIDLAND COUNTIES	63	25	47	5 below.	5	3	4 less.
	5. ENGLAND, SOUTH	60	28	47	5 below.	4	4	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	56	29	45	4 below.	5	9	1 less.
	7. ENGLAND, NORTH-WEST	58	28	46	4 below.	4	8	4 less.
	8. ENGLAND, SOUTH-WEST	59	32	51	3 below.	4	7	2 less.
	9. IRELAND, NORTH	57	32	47	2 below.	5	7	?
	10. IRELAND, SOUTH	60	29	49	2 below.	4	5	6 less.

General Remarks.

Weather rather changeable; generally fair, however, in the east and south-east, but cloudy and more unsettled in the west and north. Rain very frequent, but the amounts not large; sleet showers at Aberdeen on the 15th.

Temperature again below the mean. Changes very sudden and extensive; readings tolerably high at commencement of week, but thermometer falling quickly on the 15th, and maxima below 50° in almost all places on that and the following day, with night frosts at many stations. At Hereford and Marlborough the thermometer exposed on the grass fell to 19° during the night of the 15th-16th. Temperature rising again suddenly on the 17th, and maximum readings over England on the 19th ranging from 57° to 64°.

Rainfall less than the mean in all districts excepting "Scotland, E.," where it was about the average. The deficit greatest in "England, S.W.," and "Ireland, S.," and least in "England, E.," and "Scotland, W."

Wind generally northerly or north-westerly during the early part of the week, but becoming more westerly towards its close. Northerly or north-westerly gale blowing at all the more northern stations on the 17th, and westerly or west-north-westerly gale reported very generally on the 19th and 20th.

The data from which the summary on the preceding page has been calculated are as follow:

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	51	34	42·7	− 4·0	4	0·47	−0·07
	Aberdeen	58	36	44·4	− 2·7	7	0·73	−0·00
	Glenalmond	53	30	42.1	− 4·9	5	0.46	?
	Leith	58	33	45·2	− 1·8	5	0·42	−0·04
2. ENGLAND, N.E.	Shields	59	31	45·2	− 4·0	6	0·47	−0·10
	Durham	58	31	45·3	− 4·1	4	0·46	−0·22
	York	59	33	45·7	− 4·1	6	0·43	−0·22
	Spurn Head	57	40	47·1	− 4·7	5	0·63	?
	Kelstern (Lincolnshire) ℳ	58	33	44·9	− 5·6	6	0·51	−0·28
3. ENGLAND, E.	Yarmouth	62	37	47·5	− 3·6	7	0·87	+0·23
	Cambridge	64	32	47·2	− 4·0	4	0·26	−0·22
	Audley End (Saffron Walden) ℳ							
	Rothamsted	58	32	45·2	− 6·2	7	0·35	−0·30
4. MIDLAND COUNTIES	Nottingham	63	31	46·8	− 3·8	6	0·28	−0·37
	Loughborough	62	31	46·2	− 3·5	5	0·19	−0·47
	Leicester	62	33	47·3	− 3·8	5	0·20	−0·37
	Shrewsbury ℳ	59	25	45·9	− 5·3	5	0·32	−0·38
	Hereford ℳ	60	27	47·3	− 4·9	4	0·38	−0·38
	Cirencester	57	32	46·0	− 6·3	3	0·30	−0·45
	Oxford	59	33	46·2	− 6·0	4	0·21	−0·43
5. ENGLAND, S.	London	60	35	47·5	− 4·4	3	0·16	−0·47
	Marlborough ℳ	58	28	46·4	− 5·6	5	0·45	−0·36
	Strathfield Turgiss ℳ	59	29	46·1	− 6·0	4	0·32	−0·36
	Dover	58	38	48·3	− 4·4	5	0·56	−0·19
	Hastings	58	34	46·7	− 6·5	6	0·48	−0·27
	Hurst Castle	58	33	47·3	− 5·7	3	0·29	?
6. SCOTLAND, W.	Laudale (Loch Sunart)							
	Glasgow	55	32	43·2	− 4·3	4	0·84	−0·11
	Ardrossan	55	31	44·4	− 3·7	5	0·90	−0·12
	Silloth (Cumberland)	56	29	45·2	− 4·1	5	1·04	+0·12
	Douglas (Isle of Man)	56	31	46·1	− 4·1	6	0·78	−0·20
7. ENGLAND, N.W.	Stonyhurst	55	30	44·4	− 5·8	4	1·00	−0·42
	Manchester	53	28	43·0	− 7·4	4	1·09	+0·06
	Liverpool Observatory (Bidston)	58	37	47·9	− 3·3	3	0·34	−0·69
	Holyhead	58	44	50·3	− 0·9	4	0·58	−0·62
8. ENGLAND, S.W.	Pembroke	57	42	50·8	− 1·5	4	0·56	−0·47
	Barnstaple	58	32	51·4	− 1·7	5	1·39	+0·61
	Falmouth	57	38	51·1	− 3·2	5	0·50	−0·48
	Plymouth	59	34	50·1	− 3·9	3	0·48	−0·44
	Prawle Point	59	34	49·6	− 4·3	4	0·55	?
9. IRELAND, N.	Londonderry	57	37	46·7	− 2·0	7	0·84	−0·28
	Mullaghmore	57	39	49·0	0·0	6	1·00	?
	Brookeborough	56	32	45·5	− 3·5	5	0·92	?
	Armagh	57	35	46·2	− 3·0	4	0·65	−0·17
	Donaghadee	56	38	47·1	− 1·9	3	0·29	?
10. IRELAND, S.	Dublin	58	36	48·4	− 2·4	2	0·23	−0·48
	Kingstown	60	35	48·9	− 1·9	4	0·23	−0·50
	Parsonstown	58	29	48·2	− 1·5	5	0·65	−0·17
	Roche's Point	59	39	50·3	− 0·9	2	0·42	−0·65
	Valentia	58	41	51·4	+ 0·2	6	0·55	−1·06
	Foynes	59	37	47·7	− 3·1	4	0·83	?
SCOTLAND, N.	Sumburgh Head	54	34	42·4	− 3·6	7	1·84	+1·23
	Stornoway	51	34	42·0	− 4·4	6	1·11	0·00
	Wick	51	30	40·9	− 5·8	6	0·80	+0·10
——	Scilly (St. Mary's)	58	46	53·6	− 0·7	6	0·24	−0·86
	Jersey (Noirmont)	59	41	51·4	− 2·9	5	0·77	−0·07

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending October 20, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, October 14.

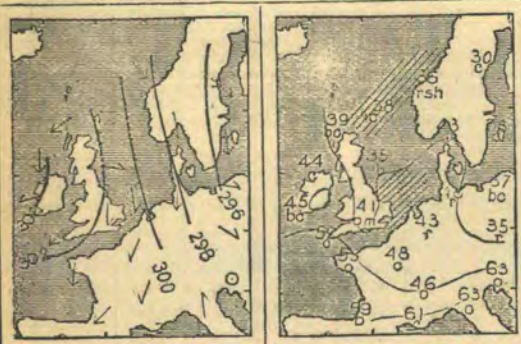
Weather overcast in nearly all parts of our area, with mist and fog in a good many places, sleet in the W. of Norway, and showers of rain at Valentia. Slight rain falling over England and Scotland later.

Temperature fallen fast over Norway and the N. of Scotland, risen slightly over England, changed little elsewhere. Readings ranging over these Islands from 39° in the Shetlands to 53° at Scilly. Fall of temperature spreading quickly southward later.

Wind northerly in Scotland, westerly over England, and easterly over France; northerly wind extending to all but our south-eastern stations later.

Sea moderate to smooth.

Barometer falling, except in the N. of Scotland, where slight recovery taking place. Readings highest off our S.W. coasts, lowest over Baltic, but small depression off our N.E. coasts. Depression passing slowly southward during day, followed by rise of barometer.



Wednesday, October 15.

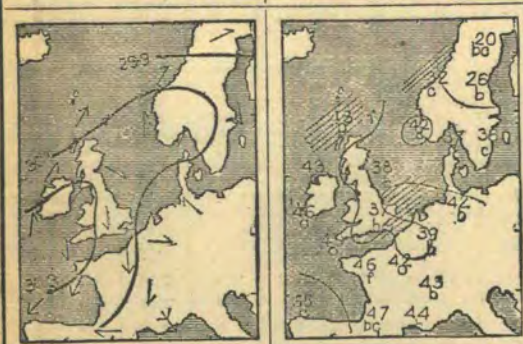
Weather fine at most of our stations, as well as on the eastern shores of the North Sea, but dull in the S.E., with rain in E. England and sleet at Aberdeen. Very fine during the day, except at Yarmouth and on our W. coasts.

Temperature fallen everywhere, slowly in the N., but very rapidly over the S. of Scotland and N. of England. Readings ranging from 35° at Leith to 52° at Scilly. Maxima very low, not exceeding 50°, except in the S.W.

Wind northerly over the whole of western Europe, moderate to fresh in force generally. No change during the day.

Sea moderate to smooth, except at Sumburgh Head.

Barometer falling a little over France and N. Germany, rising elsewhere. Readings highest off the W. of Ireland, lowest over the Baltic. Pressure giving way, except in the N. at 6 P.M., but change very slight.



Thursday, October 16.

Weather cloudy or dull in the W. and S.W., clear at the eastern and central stations and over most of the countries to the eastward of the North Sea. Weather fine all day in S.E., but rain and gloom setting in in N.W.

Temperature fallen fast and very low over France and our central and southern stations, changed little elsewhere—varying from 34° at Oxford to 49° at Scilly. Maxima low S.E., but rapid rise commencing in N.W.

Wind backed suddenly to S. on our W. and N.W. coasts, still northerly elsewhere. Blowing a gale at Stornoway, light or moderate elsewhere. South-westerly gales and strong winds spreading southward and eastward later.

Sea slight, except at Stornoway and in the E. of England.

Barometer falling briskly N. and W., rising slowly elsewhere. Area of high pressure over our south-western stations, and depression appearing in N.W. Disturbance advancing eastward later, and mercury falling fast.

Friday, October 17.

Weather fine in the S.W. of France, at Cuxhaven, and at some north-eastern stations, dull and unsettled elsewhere, with squalls and rain in the W. and S. No improvement during day.

Temperature risen very fast, the change exceeding 10° generally, and amounting to 17° at Hurst Castle. Readings varying from 39° at Nairn, to 56° at Scilly. Maxima generally between 55° and 60°, except in the N. and N.W.

Wind northerly in Scotland, between N.W. and W. on our other coasts, and southerly on the eastern shores of the North Sea, blowing a gale at all the more northern ports, and over Denmark and Norway; strong generally. Gale dying down at night.

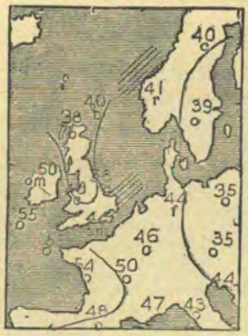
Sea rough N., W., and S.

Barometer rising fast at Stornoway, still falling elsewhere, decrease exceeding three quarters of an inch in E. Scotland and W. Norway. Deep depression near Christiansund, subsidiary disturbance between Shetlands and Norway. Barometer rising in N. during day.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m. Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.



Saturday, October 18.

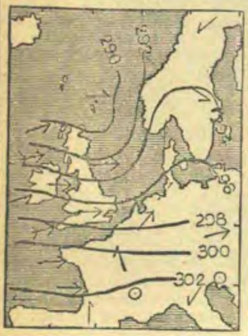
Weather overcast over Ireland and France, foggy in Denmark, dull and rainy in Scandinavia, very fine most of our stations. Fine in E. and S.E. all day, but rain and cloud setting in in N.W.

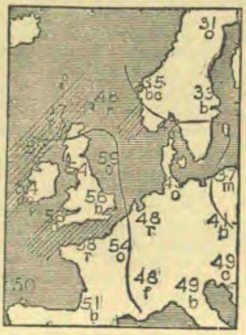
Temperature risen very fast over France and N. Germany, fallen very considerably over the British Isles. Readings ranging from 35° at Wick and 37° at York, to 55° in the S.W. Thermometer rising very fast later in day.

Wind south-westerly at Valentia, westerly at all our more northern stations, and northerly in the E. and S.; light in force. South-westerly gale springing up at Stornoway at night, and wind backing generally.

Sea moderate to smooth.

Barometer falling on our western and north-western coasts, rising elsewhere,—briskly on our north-eastern coasts, slightly elsewhere. Brisk decrease of pressure taking place at Stornoway later, and spreading to all coasts.





Sunday, October 19.

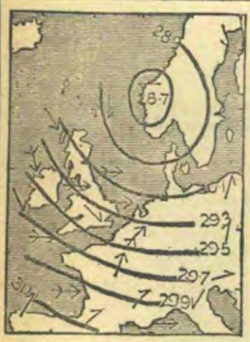
Weather fine on our N.E. coasts but dull and unsettled in nearly all other parts of western Europe, with rain over France, the Netherlands, and many parts of these Islands. Little change during day, and rain falling at all stations.

Temperature risen very considerably, change exceeding 10°, except in the W., and amounting to 20° at York and Shields. Readings uniform, varying from 48° in the Shetlands to 58° at Scilly. Falling fast in the evening.

Wind westerly on all our coasts and over France, south-westerly in the Netherlands, and south-easterly in Norway; strong generally, and blowing a gale in several places. Fresh to strong gale on many coasts during day.

Sea rough, W., S., and N..

Barometer rising a little over France, falling elsewhere—rapidly over these Islands. Pressure highest over France, with large depression to the northward of Scotland. Disturbance moving very slowly and barometer falling all day.



Monday, October 20.

Weather fine at most of our more northern and eastern stations, and in S. France, unsettled and cloudy elsewhere, with rain over the Channel and in N. Ireland. Rain except in the S.E. and S.W. later.

Temperature risen on the Continent generally, but fallen briskly over these Islands. Readings varying from 40° at Nairn to 54° at Scilly. Maxima below 50° in Scotland, between 50° and 55° elsewhere.

Wind northerly to north-westerly on our northern and western coasts, westerly to south-westerly over England and France, south-westerly over the North Sea, and easterly in the N. of Scandinavia. Blowing a gale in many parts of our own and the French coasts. Taking off towards evening.

Sea high at Rochefort, Scilly, and Mullaghmore, rough generally in the W., S., and N.E.

Barometer beginning to rise on our northern coasts, still falling elsewhere. Disturbance noticed above shown over Norway. Pressure increasing everywhere during day—rapidly in N.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⋙——➤ = a heavy gale; ≫——➤ = a gale; ——➤ = a fresh to strong breeze; ——➤ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—10/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 43.] WEEK ENDING MONDAY, OCTOBER 27, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	62	28	46	0 (average).	4	2	4 less.
	2. ENGLAND, NORTH-EAST	62	28	47	2 below.	2	1	6 less.
	3. ENGLAND, EAST	61	30	48	2 below.	3	3	2 less.
	4. MIDLAND COUNTIES	61	30	48	1 below.	4	4	3 less.
	5. ENGLAND, SOUTH	61	29	50	1 below.	4	4	3 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	60	30	47	0 (average).	4	7	3 less.
	7. ENGLAND, NORTH-WEST	59	31	48	1 below.	4	7	5 less.
	8. ENGLAND, SOUTH-WEST	60	41	52	0 (average).	6	11	3 more.
	9. IRELAND, NORTH	59	31	48	0 (average).	5	7	?
	10. IRELAND, SOUTH	62	29	49	0 (average).	5	7	3 less.

General Remarks.

Weather dull and mild during the early part of the week, but much finer and colder towards its close, especially in Ireland and Scotland. Fog and mist in many parts of the kingdom on the 23rd, and mist at the more southern stations on the 27th. Thunderstorm, with heavy rain, at Dublin early on the morning of the 26th.

Temperature about the mean in Scotland, "England, S.W.," and Ireland, but below it in all other districts; the deficit, however, very small generally. The highest maxima occurred in most places on the 23rd or 24th, and the minima at the time were also high, but towards the close of the week the day readings were nearly ten and the night readings about twenty degrees lower than they were during the earlier part of the time, and night frosts were reported in many places.

Rainfall less than the mean in all districts excepting "England, S.W.," the deficit varying from two tenths of an inch in "England, E.," to six tenths in "England, N.E."

Wind fresh north-westerly to northerly at the beginning of the week, afterwards backing to W. and falling moderate. Westerly breezes continuing until the 25th, but an easterly wind setting in on the 26th, and blowing a gale in the south-west on the 27th.

The data from which the summary on the preceding page has been calculated are as follow :-

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	57	29	44·7	− 0·8	5	0·15	−0·37
	Aberdeen	61	30	46·0	+ 0·3	2	0·19	−0·51
	Glenalmond	62	28	45·1	− 0·5	3	0·38	?
	Leith	62	29	47·4	+ 1·8	4	0·13	−0·28
2. ENGLAND, N.E.	Shields	61	32	46·8	− 1·0	4	0·15	−0·42
	Durham	60	28	46·1	− 1·6	3	0·09	−0·59
	York	62	30	46·7	− 1·2	1	0·01	−0·60
	Spurn Head	59	41	48·6	− 1·6	1	0·11	?
	Kelstern (Lincolnshire) ℳ	58	32	46·1	− 2·6	3	0·14	−0·62
3. ENGLAND, E.	Yarmouth	60	36	47·8	− 1·4	3	0·36	−0·22
	Cambridge	61	31	47·9	− 1·2	2	0·22	−0·20
	Audley End (Saffron Walden) ℳ	?	?	?	?	3	0·33	−0·19
	Rothamsted	58	30	47·3	− 2·6	5	0·26	−0·34
4. MIDLAND COUNTIES	Nottingham	60	31	47·2	− 1·5	4	0·24	−0·38
	Loughborough	59	30	47·2	− 0·7	4	0·23	−0·39
	Leicester	59	35	48·6	− 0·7	4	0·28	−0·26
	Shrewsbury ℳ	61	32	48·6	− 0·8	3	0·88	+0·21
	Hereford ℳ	60	38	50·0	− 0·3	2	0·34	−0·38
	Cirencester	57	36	48·0	− 2·4	5	0·37	−0·34
	Oxford	58	33	48·6	− 1·7	4	0·33	−0·27
5. ENGLAND, S.	London	60	35	48·5	− 1·7	3	0·23	−0·37
	Marlborough ℳ	59	35	49·2	− 1·1	4	0·38	−0·35
	Strathfield Turgiss ℳ	61	29	48·8	− 1·5	3	0·35	−0·25
	Dover	59	41	50·1	− 0·7	5	0·41	−0·37
	Hastings							
	Hurst Castle	56	44	51·2	− 0·2	4	0·47	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	56	32	46·6	+ 0·4	5	1·09	?
	Glasgow	58	33	45·5	− 0·5	4	0·95	+0·03
	Ardrossan	55	35	47·1	+ 0·3	3	0·86	−0·16
	Silloth (Cumberland)	56	32	46·4	− 0·9	3	0·47	−0·41
	Douglas (Isle of Man)	60	30	47·5	− 0·9	4	0·35	−0·67
7. ENGLAND, N.W.	Stonyhurst	55	34	45·6	− 3·1	5	1·15	−0·23
	Manchester	56	31	47·3	− 1·5	3	0·47	−0·55
	Liverpool Observatory (Bidston)	59	40	49·1	− 0·2	4	0·50	−0·42
	Holyhead	58	43	51·2	+ 1·6	5	0·53	−0·63
8. ENGLAND, S.W.	Pembroke	57	43	51·6	+ 1·2	6	0·76	−0·26
	Barnstaple							
	Falmouth	59	44	52·8	− 0·2	7	1·47	+0·42
	Plymouth	59	41	51·4	− 1·2	6	1·53	+0·66
	Prawle Point	60	42	52·4	− 0·2	6	0·64	?
9. IRELAND, N.	Londonderry	57	31	46·8	− 0·7	4	0·48	−0·62
	Mullaghmore	59	40	48·8	+ 1·3	6	1·33	?
	Brookeborough	57	33	46 7	− 1·1	6	0·77	?
	Armagh	57	33	47·2	− 0·6	5	0·50	−0·28
	Donaghadee	58	35	48·0	+ 0·5	3	0·46	?
10. IRELAND, S.	Dublin	59	37	49·7	+ 0·4	4	0·83	+0·12
	Kingstown	61	39	50·5	+ 1·3	4	0·84	+0·14
	Parsonstown	59	29	48·3	0·0	6	0·28	−0·49
	Roche's Point	62	38	50·3	+ 0·5	3	0·37	−0·69
	Valentia	57	36	50·0	+ 0·3	6	0·95	−0·59
	Foynes	56	35	47·6	− 1·3	5	0·72	?
SCOTLAND, N.	Sumburgh Head	51	34	44·1	− 0·6	5	0·78	+0·18
	Stornoway	52	33	44·4	− 1·0	4	0·46	−0·64
	Wick	55	27	44·4	− 1·0	4	1·00	+0·31
——	Scilly (St. Mary's)	58	46	53·7	+ 0·7	7	1·17	+0·09
	Jersey (Noirmont)	60	48	53·2	+ 0·3	5	0·48	−0·35

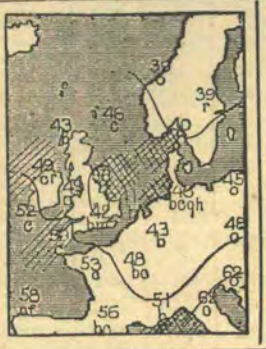
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending October 27, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.



Weather during the 24 hours succeeding the date of the Charts.

Tuesday, October 21.

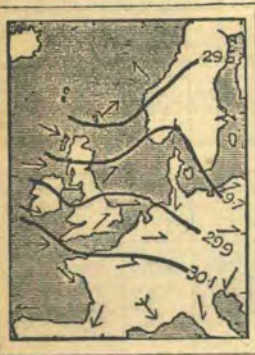
Weather fine over all the more northern, central, and eastern parts of the Kingdom, as well as in the N. and E. of France; overcast or cloudy elsewhere, with showers of hail at Cuxhaven and rain at Hurst Castle. Little change during day.

Temperature risen slightly Ireland; fallen elsewhere, briskly England and N. France. Readings ranging from 36° at Shields to 54° at Scilly. Maxima between 50° and 55° except in E. Scotland and England, where lower.

Wind north-westerly to northerly all over western Europe; moderate to fresh on our coasts, but blowing a hard gale over the North Sea. Wind backing to W.S.W. in the N.W. at 6 P.M.

Sea very high on eastern shores of North Sea, rough at some of our western and eastern stations, moderate to slight elsewhere.

Barometer falling briskly at Toulon; rising elsewhere—rapidly on our northern coasts and over the North Sea. Readings highest S.W., with well marked depression over the Baltic. Slight decrease at Stornoway later.



Wednesday, October 22.

Weather fine over Denmark and N. Germany; dull, rainy, unsettled elsewhere. No improvement during day, and slight rainfall subsequently reported from most stations.

Temperature fallen most parts of the Continent, rising over these Islands. Readings varying from 56° at Scilly to 40° at Yarmouth. Maxima slightly exceeding 60° in E. Scotland as well as at Roche's Point and Prawle Point; between 50° and 60° elsewhere.

Wind westerly on all our coasts, but drawing into S. in the W. of Norway; blowing freshly in the S.W., W., and N., light in the E. Little change during day beyond an inclination to veer towards N.W.

Sea rough at Mullaghmore, Spurn Head, and Sumburgh Head.

Barometer rising rapidly over the S. of Scandinavia and over N. Germany, slightly over the S. of these Islands and France; falling on our northern coasts. Small depressions passing over us. Barometer rising W. and N., falling E. later.

Thursday, October 23.

Weather fine at some of the north-eastern stations, over the Skager Rack, and at Toulon, dull or cloudy elsewhere, with fog, mist, or drizzling rain in many places. Heavy rain in the N.W. and slight rain at most stations subsequently.

Temperature risen in nearly all places, except the Shetlands and Hebrides. Readings uniform over these Islands, varying from 42° in the extreme N. to 55° in the S. Maxima between 55° and 60° generally.

Wind westerly on most coasts, but drawing into N.W. and N. over the Bay of Biscay. Moderate to light in force generally. Wind backing to S.W. on our western coasts later, and freshening at Mullaghmore.

Sea high at Christiansund and rough in the Skager Rack, nearly smooth on our coasts.

Barometer falling a little on our N.W. coasts, as well as over Sweden, rising elsewhere. Readings highest over Bay of Biscay, lowest over Sweden. Pressure decreasing briskly in N. Ireland at night.

Friday, October 24.

Weather fine over Sweden, the S.E. of France, the N.E. of England, and N. of Scotland, cloudy or dull elsewhere, with rain in Norway and the E. of Scotland. Dull all day, and rain general.

Temperature fallen somewhat on our western coasts and over W. France, risen in the E. and S.E., and on the eastern shores of the North Sea; readings ranging from 44° in the Shetlands to 57° in London. Maxima between 50° and 60°.

Wind westerly to south-westerly at our stations, but south-westerly in N. Germany, and south-easterly in Norway, moderate on most of our coasts, fresh in Norway. Little change in direction later, but force increasing in W. and S.W.

Sea rough at Mullaghmore, moderate or slight on our other coasts.

Barometer rising over Sweden, falling elsewhere; large depression lying to the northward of Scotland, with small subsidiary disturbances passing over us. Small depression over Channel at night, barometer rising in the N.

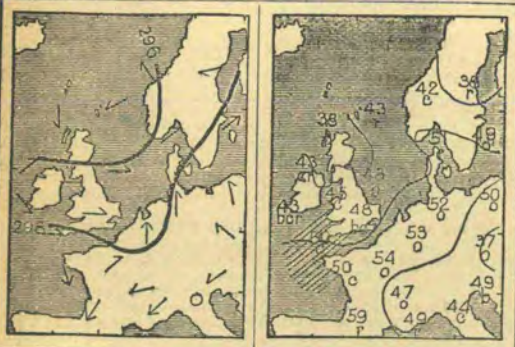
(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, October 25.

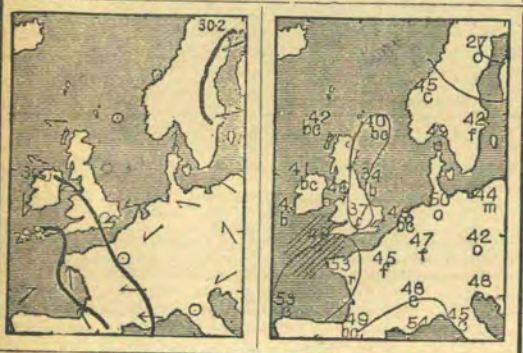
Weather overcast to the eastward of the North Sea, over the E. of France, and on the extreme S.E. coast of England, fine and bright in most other places. Showers in the W. later, but fine all day over England.

Temperature fallen very fast over these Islands and the N.W. of France, risen or changed irregularly elsewhere; change amounting to 18° at Aberdeen; readings ranging from 35° at Nairn to 50° at Scilly.

Wind westerly on our coasts, but drawing into S. and S.E. on the eastern shores of the North Sea, and into N.W. and N. over the Bay of Biscay,—blowing strongly in W. France, moderately elsewhere. Falling lighter later.

Sea rough in the S.W.

Barometer falling briskly over N. Germany, and slightly over France, rising slowly elsewhere. Readings highest over France, lowest over Scotland, but with small disturbance over N. Germany. Brisk rise in the N. later.



Sunday, October 26.

Weather dull over the S.W. of England and at most of the Continental stations, fine and bright generally. Rain falling in Brittany and at Pembroke. Sky cloudy all over the S. of England later, and rain spreading eastward.

Temperature fallen in nearly all places—quickly in the E. Readings ranging from 30° at Leith and 34° at Cambridge, to 52° at Prawle Point. Rising fast in the E. later. Maxima between 50° and 55° generally.

Wind south-easterly over the W. of France and the Channel, easterly over the E. of France and on most of our coasts, and north-easterly in S. Ireland. Blowing freshly or strongly in the W. and S.W. Little change later, except increase of wind at Scilly.

Sea rough at the mouth of the Channel, moderate to smooth elsewhere.

Barometer fallen over the Bay of Biscay, risen elsewhere—rapidly in the N. Highest pressures now shown over the Baltic and lowest off the W. of France. Barometer falling at Rochefort later, but still rising elsewhere.

Monday, October 27.

Weather fine over Ireland and Scotland, dull or cloudy in nearly all other places, with mist at many stations and rain over the western half of the Channel. Dry and fair all day.

Temperature fallen in N. Scotland and over Denmark and N. Germany, risen elsewhere—very fast over central and eastern England. Readings ranging from 29° at Nairn, to 56° at Scilly. Low all day in N. Scotland.

Wind south-easterly over France, but easterly on all our coasts; light in force in the E. and N., but blowing strongly in the W. and reaching a gale in the S.W. No change during day.

Sea rough off the S.W. of England and at Kingstown.

Barometer rising over the whole of western Europe, the change being greatest in the N., least in the S.W. Well marked depression shown off Ushant, with an area of high pressure over the North Sea. Pressure increasing all day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—10/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 44.] WEEK ENDING MONDAY, NOVEMBER 3, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	54	29	41	3 below.	2	1	4 less.
	2. ENGLAND, NORTH-EAST	53	30	43	3 below.	4	?5	0 (average).
	3. ENGLAND, EAST	59	30	45	3 below.	5	2	4 less.
	4. MIDLAND COUNTIES	54	30	44	4 below.	2	1	5 less.
	5. ENGLAND, SOUTH	54	30	45	4 below.	2	less than ½	6 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	56	30	43	2 below.	1	less than ½	9 less.
	7. ENGLAND, NORTH-WEST	57	31	45	3 below.	1	1	9 less.
	8. ENGLAND, SOUTH-WEST	60	32	47	3 below.	1	less than ½	11 less.
	9. IRELAND, NORTH	54	31	45	1 below.	3	1	?
	10. IRELAND, SOUTH	60	26	46	1 below.	0	—	9 less.

General Remarks.

Weather cloudy or dull generally, but occasionally fine in some places, more especially at the eastern and north-eastern stations. Mist at many of the western and southern stations during the early part of the week. Snow showers in Scotland and the north of England, and hail in some other districts, on the 1st November.

Temperature below the mean in all districts; the deficit very small in Ireland, but amounting to three or four degrees in most other parts of the kingdom. The highest maxima registered generally on the 28th October, but in some parts of "Scotland, W.," and "England, N.W.," the 30th was the warmest day. The lowest minima observed at the close of the week; slight frosts in many places on the 2nd and 3rd, when, also, the thermometer exposed on the grass fell to 25° at Hereford and Marlborough.

Rainfall extremely slight generally, the comparatively large amount entered to "England, N.E.," being due to a heavy fall of hail and sleet which is reported to have occurred at Shields on the 1st November. In "Ireland, S.," no rain whatever has been measured.

Wind north-easterly to easterly at first in all but the most northern districts, afterwards becoming northerly generally. The easterly breeze blowing strongly in the Channel on the 29th and 31st, and slight northerly gale experienced in many places on the 1st and 2nd November.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	50	29	39·5	− 4·3	3	0·09	−0·43
	Aberdeen	52	30	41·6	− 2·5	4	0·35	−0·35
	Glenalmond	51	29	40·1	− 4·0	0	—	?
	Leith	54	31	42·6	− 1·6	0	—	−0·42
2. ENGLAND, N.E.	Shields	51	33	42·1	− 4·1	4	? 1·34	+0·74
	Durham	53	31	41·2	− 4·8	5	0·50	−0·18
	York	52	30	42·4	− 3·9	4	0·24	−0·31
	Spurn Head	53	40	46·8	+ 0·4	4	0·27	?
	Kelstern (Lincolnshire) ℳ	51	32	43·5	− 3·2	5	0·36	−0·32
3. ENGLAND, E.	Yarmouth	53	37	46·6	− 0·8	3	0·26	−0·37
	Cambridge	56	31	45·1	− 1·7	5	0·13	−0·27
	Audley End (Saffron Walden) ℳ	59	30	44·5	− 3·5	6	0·11	−0·39
	Rothamsted	52	31	42·9	− 5·2	4	0·10	−0·47
4. MIDLAND COUNTIES	Nottingham	52	33	44·5	− 2·2	3	0·05	−0·51
	Loughborough	52	32	44·5	− 1·8	2	0·03	−0·55
	Leicester	53	33	44·6	− 2·7	3	0·07	−0·45
	Shrewsbury ℳ	50	32	41·2	− 6·6	2	0·17	−0·45
	Hereford ℳ	51	32	44·7	− 3·5	2	0·07	−0·60
	Cirencester	53	30	43·7	− 4·5	1	0·03	−0·64
	Oxford	54	32	44·7	− 3·4	2	0·06	−0·50
5. ENGLAND, S.	London	53	34	46·2	− 2·2	3	0·04	−0·50
	Marlborough ℳ	54	30	43·9	− 4·3	2	0·05	−0·63
	Strathfield Turgiss ℳ	52	30	44·5	− 3·8	2	0·04	−0·53
	Dover	52	36	45·8	− 3·0	3	0·10	−0·70
	Hastings	52	33	44·6	− 4·5	1	0·01	−0·71
	Hurst Castle	52	32	45·6	− 4·2	1	0·02	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	56	33	44·9	− 0·2	2	0·10	?
	Glasgow	52	30	42·2	− 2·3	0	—	−0·90
	Ardrossan	54	34	43·5	− 2·1	0	—	−0·99
	Silloth (Cumberland)	54	30	41·2	− 5·0	1	0·11	−0·70
	Douglas (Isle of Man)	55	33	44·8	− 2·0	1	0·01	−1·01
7. ENGLAND, N.W.	Stonyhurst	50	32	42·6	− 4·1	2	0·03	−1·27
	Manchester	54	31	43·6	− 3·3	0	—	−0·97
	Liverpool Observatory (Bidston)	53	35	44·2	− 3·5	1	0·34	−0·47
	Holyhead	57	41	47·7	− 0·5	1	0·01	−1·03
8. ENGLAND, S.W.	Pembroke	54	36	46·3	− 2·5	1	0·03	−0·95
	Barnstaple	60	33	47·5	− 1·9	0	—	−1·09
	Falmouth	55	37	47·3	− 4·1	1	0·01	−1·11
	Plymouth							
	Prawle Point	55	32	46·4	− 4·3	0	—	?
9. IRELAND, N.	Londonderry	51	36	44·3	− 1·4	6	0·13	−0·91
	Mullaghmore	53	40	46·2	+ 0·2	2	0·02	?
	Brookeborough							
	Armagh	54	31	43·5	− 2·9	4	0·09	−0·62
	Donaghadee	53	39	45·9	0·0	1	0·01	?
10. IRELAND, S.	Dublin	53	34	45·7	− 2·2	1	0·01	−0·69
	Kingstown	54	35	46·5	− 0·9	1	0·01	−0·65
	Parsonstown	57	26	48·8	− 3·1	0	—	−0·70
	Roche's Point	56	33	47·0	− 1·4	0	—	−1·08
	Valentia	60	35	47·4	− 0·2	0	—	−1·41
	Foynes	58	32	47·2	+ 0·5	0	—	?
SCOTLAND, N.	Sumburgh Head	50	31	42·5	− 1·1	7	0·33	−0·27
	Stornoway	50	33	41·8	− 2·7	5	0·24	−0·85
	Wick	50	32	41·1	− 2·8	3	0·14	−0·55
——	Scilly (St. Mary's)	56	41	49·0	− 2·8	2	0·03	−0·99
	Jersey (Noirmont)	56	40	47·3	− 4·2	1	0·01	−0·79

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending November 3, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND.

CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, October 28.

Weather cloudy or dull generally, but fine or clear at some of our E. and W. coast stations. Dull, except in those districts, all day, but scarcely any rain falling.

Temperature fallen except on our N.W. and N. coasts; ranging from 32° at Nairn to 55° at Scilly; maxima during day 60° at Valentia, 57° at Holyhead, between 50° and 56° elsewhere.

Wind south-westerly in the extreme N. of Scotland and N. of Scandinavia, north-easterly to easterly elsewhere; fresh or strong in force over the Channel and W. France, moderate generally. No change later.

Sea rough at the mouth of the Channel, moderate to slight elsewhere.

Barometer falling a little in S. France, N. Scotland, and over Scandinavia, rising elsewhere. Large area of high pressure over England, the North Sea, and southern parts of Scandinavia. Readings lowest over Bay of Biscay. Decreasing, except in the S.W., later.

Wednesday, October 29.

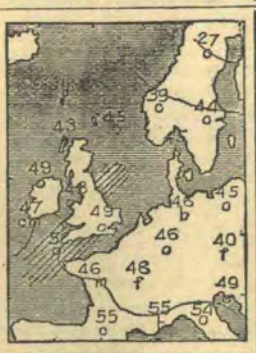
Weather fine at Valentia and in parts of Wales and the N. of England, dull elsewhere, with drizzling rain at Cambridge and in London; mist over the Channel. Dull and misty all day, except at Valentia, with drizzling rain in N.E.

Temperature risen fast in Scotland, fallen several degrees over Ireland, England, and France, readings ranging from 34° at York to 50° at Scilly. Maxima below 50° in the E. of England and Scotland, between 50° and 55° elsewhere.

Wind westerly over Scandinavia, northerly in Scotland, easterly over England, Ireland, and France; light or moderate generally, but blowing strongly in the Channel and reaching a gale in W. France. No change later.

Sea rough at Christiansund and the mouth of the Channel, light or moderate elsewhere.

Barometer rising in Scotland, falling elsewhere. Readings high and uniform over these Islands with depressions over S.W. France and the N. of Sweden. Pressure increasing a little generally later.



Thursday, October 30.

Weather clear N. Germany and Denmark, more or less cloudy elsewhere; much fog and mist over France and our southern stations. Weather dull all day but dry.

Temperature fallen over Scotland and the countries to the eastward of the North Sea, risen elsewhere. Readings ranging from 37° at Nairn to 52° at Scilly. Maxima between 50° and 55°.

Wind north-westerly to south-westerly over the Shetlands, Scandinavia, and Denmark, north-easterly to easterly over these Islands and France, light in the N., but strong in the S. and over France. No change later.

Sea rough at Christiansund, at the mouth of the Humber, and in the western part of the Channel.

Barometer risen a little in all places. Anticyclone over Scotland, low readings over Lapland and Spain. Pressure almost unchanged during day.

Friday, October 31.

Weather fine over Sweden, Denmark, and N. Germany, as well as at some of our E. coast stations; dull elsewhere. Sky very cloudy all day except at Aberdeen and Yarmouth. Some rain in N.

Temperature fallen considerably over Scandinavia, and slightly generally. Readings ranging from 36° at Aberdeen to 51° at Scilly. Sharp frost Sweden. Maxima low generally.

Wind westerly in N. Scotland, and south-westerly in the W. of Norway, easterly over the North Sea, England, Ireland, and France; strong over the Channel and W. France. Westerly wind in the N. increasing in force later.

Sea rough in the S.W. and at the mouth of the Humber.

Barometer falling in nearly all places except Sweden. Band of high pressure lying over the N. of these Islands, the North Sea, and S. of Scandinavia, with low readings near Christiansund and over the Bay of Biscay. Falling fast in N. later.

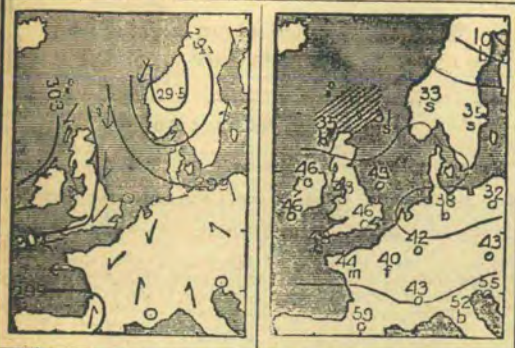
(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, November 1.

Weather fine at Stornoway and Wick; cloudy or dull in nearly all other places, with snow in the N.E. of Scotland, at Christiansund, and in Sweden, and mist in the S. Sky clearing in the N. later, but snow and rain in the E. and S.

Temperature risen Scandinavia and Denmark, fallen elsewhere—quickly N. Scotland. Readings ranging from 31° in the Shetlands to 48° at Scilly. Maxima nowhere exceeding 50°, and below 40° in the N.

Wind northerly generally, but drawing into E. over France, and into W. and S. in Scandinavia. Wind fresh to strong except in E. England, and blowing a gale at Christiansund and Nairn. Strong northerly winds all day.

Sea rough in far N.

Barometer beginning to rise in N. Scotland, but falling in nearly all other places—quickly in the N. Deep depression near Christiansund; highest pressures off our western coasts. Pressure increasing except in the S.E. later.

Sunday, November 2.

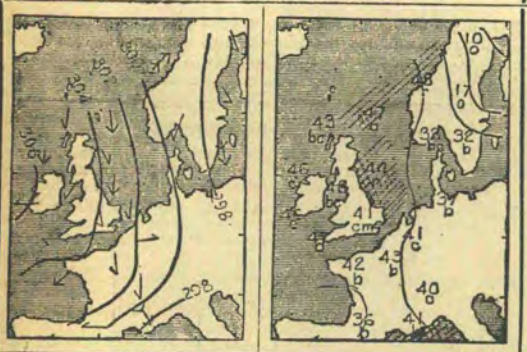
Weather fine over nearly the whole Kingdom, but generally cloudy or dull on the Continent, with rain over N. Germany and at Lyons, mist at Toulon. Slight rain falling in the evening.

Temperature fallen briskly, except in N. Germany, N. Scotland, and over France; readings ranging over these Islands from 33° at Oxford to 45° at Scilly. Maxima below 50° everywhere.

Wind northerly on our coasts and over North Sea, but easterly over France, fresh generally and blowing a gale in some places. Little change during day, gale holding in S.W.

Sea high at the Scaw, on our N.E. coasts, and at Scilly, moderate to slight elsewhere.

Barometer falling over the Baltic and in S. France, rising elsewhere; readings high (exceeding 30·5 in.) over Ireland, low over S. Sweden and S. France. Slight fall in extreme N. later.



Monday, November 3.

Weather clear in the S. of France and over Denmark, cloudy or dull in nearly all other places with slight rain in E. England. Weather clear and bright at most of the more northern stations later.

Temperature fallen briskly on eastern shores of the North Sea and rapidly in S. France. Readings ranging from 37° to 48° over these Islands, and as low as 36° at Biarritz. Maxima a little above 50° in the W., below elsewhere.

Wind northerly in almost all parts of western Europe, moderate to strong on our coasts, but strong at Rochefort and Toulon. South-westerly gale at Christiansund. Northerly breezes all day.

Sea rough in the E., moderate to slight elsewhere.

Barometer falling briskly N. Scandinavia and S. France, rising briskly elsewhere. Readings very high Ireland, low over Baltic and S. France. Slight decrease occurring on our northern coasts later, but mercury rising generally.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ➔ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

LONDON: Printed by GEORGE E. EYRE and WILLIAM SPOTTISWOODE,
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[48.—150.—11/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 45.] WEEK ENDING MONDAY, NOVEMBER 10, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	58	29	45	4 above.	2	5	1 less.
	2. ENGLAND, NORTH-EAST	56	32	45	2 above.	1	2	4 less.
	3. ENGLAND, EAST	55	29	45	1 above.	1	less than ½	5 less.
	4. MIDLAND COUNTIES	57	34	46	2 above.	1	less than ½	5 less.
	5. ENGLAND, SOUTH	58	33	46	1 above.	2	less than ½	6 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	56	26	47	4 above.	4	10	2 less.
	7. ENGLAND, NORTH-WEST	54	30	46	2 above.	2	2	7 less.
	8. ENGLAND, SOUTH-WEST	57	36	49	2 above.	1	less than ½	9 less.
	9. IRELAND, NORTH	58	32	47	3 above.	4	8	?
	10. IRELAND, SOUTH	56	36	48	3 above.	2	3	6 less.

General Remarks.

Weather fine except in S.W. during first few days, dull generally later. Fog and mist prevailing in the E. and dense fog in London on Friday evening.

Temperature above the mean in all districts, the excess varying from 1° to 4°. The highest maxima were generally registered on the 7th and the lowest minima on the 4th, while slight frosts were experienced both at the commencement and end of the period.

Rainfall was exceedingly slight except in Scotland and the North of Ireland, but there also it was below the mean.

Wind north-westerly to northerly generally, but occasionally backing to W. in the north. Moderate to fresh in force.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	53	37	46·9	+ 5·6	3	0·37	−0·15
	Aberdeen	56	35	45·8	+ 4·0	2	0·31	−0·37
	Glenalmond	54	33	44·4	+ 3·2	3	0·68	?
	Leith	58	29	43·2	+ 1·7	1	0·73	+0·21
2. ENGLAND, N.E.	Shields	54	35	45·1	+ 1·9	2	0·22	−0·42
	Durham	56	32	44·1	+ 0·7	1	0·34	−0·36
	York	55	35	44·6	+ 1·2	1	0·11	−0·46
	Spurn Head	52	42	46·3	+ 2·9	1	0·01	?
	Kelstern (Lincolnshire) ℳ							
3. ENGLAND, E.	Yarmouth	52	39	45·4	+ 1·2	2	0·02	−0·68
	Cambridge	55	35	44·7	+ 1·3	1	0·02	−0·36
	Audley End (Saffron Walden) ℳ	54	29	44·2	− 0·3	0	—	−0·49
	Rothamsted	54	36	44·2	− 0·3	1	0·02	−0·48
4. MIDLAND COUNTIES	Nottingham	55	36	45·5	+ 1·9	2	0·02	−0·47
	Loughborough	57	38	45·7	+ 2·0	0	—	−0·50
	Leicester	54	39	45·6	+ 2·0	1	0·01	−0·49
	Shrewsbury ℳ	52	34	45·8	+ 1·8	2	0·13	−0·42
	Hereford ℳ	53	40	46·9	+ 2·2	1	0·02	−0·59
	Cirencester	52	35	45·0	+ 1·0	1	0·01	−0·59
	Oxford	53	38	46·1	+ 2·1	1	0·02	−0·46
5. ENGLAND, S.	London	53	35	45·3	+ 0·3	0	—	−0·46
	Marlborough ℳ	52	34	45·5	+ 0·8	2	0·02	−0·60
	Strathfield Turgiss ℳ	55	33	45·5	+ 0·9	2	0·01	−0·50
	Dover	58	40	46·7	+ 2·3	1	0·09	−0·81
	Hastings	53	38	45·9	+ 0·4	3	0·04	−0·63
	Hurst Castle	53	37	46·2	+ 0·2	2	0·07	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	55	34	47·3	+ 4·3	6	2·14	?
	Glasgow	53	28	45·7	+ 3·2	3	0·85	−0·02
	Ardrossan	53	34	46·9	+ 3·9	6	1·06	+0·13
	Silloth (Cumberland)	56	26	46·9	+ 3·3	2	0·38	−0·29
	Douglas (Isle of Man)	54	39	48·4	+ 4·1	2	0·35	−0·67
7. ENGLAND, N.W.	Stonyhurst	52	34	44·8	+ 1·5	4	0·24	−0·94
	Manchester	54	30	43·0	− 0·2	2	0·19	−0·68
	Liverpool Observatory (Bidston)	53	41	47·6	+ 3·2	1	0·14	−0·49
	Holyhead	54	45	50·0	+ 4·3	1	0·19	−0·56
8. ENGLAND, S.W.	Pembroke	53	44	49·5	+ 3·2	1	0·07	−0·83
	Barnstaple	54	37	49·0	+ 2·8	0	—	−0·87
	Falmouth	54	44	49·5	+ 0·8	1	0·01	−1·19
	Plymouth	56	36	48·3	+ 0·9	1	0·02	−0·78
	Prawle Point	57	39	47·5	+ 0·1	2	0·07	?
9. IRELAND, N.	Londonderry	53	36	46·2	+ 2·5	6	0·87	−0·03
	Mullaghmore	52	35	47·7	+ 4·0	5	0·86	?
	Brookeborough	53	32	46·2	+ 2·4	4	0·83	?
	Armagh	52	38	46·4	+ 2·4	4	0·76	−0·15
	Donaghadee	58	42	48·0	+ 4·2	3	0·79	?
10. IRELAND, S.	Dublin	54	40	47·6	+ 3·0	1	0·37	−0·31
	Kingstown	55	42	48·2	+ 3·5	1	0·35	−0·22
	Parsonstown	56	38	47·7	+ 3·2	2	0·28	−0·32
	Roche's Point	55	36	48·0	+ 2·5	1	0·26	−0·86
	Valentia	55	42	48·8	+ 3·5	1	0·18	−1·02
	Foynes	55	39	46·9	+ 3·2	3	0·14	?
SCOTLAND, N.	Sumburgh Head	53	38	45·7	+ 3·7	7	1·06	+0·46
	Stornoway	51	35	45·3	+ 2·6	6	1·06	+0·04
	Wick	53	32	45·3	+ 3·2	5	0 31	−0·42
——	Scilly (St. Mary's)	54	46	50·8	+ 1·6	1	0·01	−0·96
	Jersey (Noirmont)	53	43	48·7	− 0·2	1	0·27	−0·45

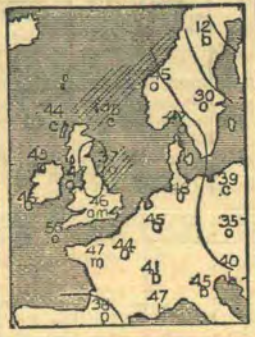
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending November 10, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, November 4.

Weather fine at most of our more eastern and northern stations, cloudy or dull generally, with some fog and mist at the central stations. Little change during day and scarcely any rain falling.

Temperature fallen in the N.E. of England and E. of Scotland, risen elsewhere; readings ranging from 35° at Leith, to 50° at Scilly. Maxima about 50° on our W. and S.W. coasts, rather below elsewhere.

Wind south-westerly at Mullaghmore, northerly on most of our other coasts, and north-easterly over the Channel. Moderate to light in force. Wind backing to W. in the N. later and inclined to freshen.

Sea rather rough at Christiansund, the Shetlands, and Spurn Head, nearly smooth in most other places.

Barometer falling extreme N., but pressure increasing generally. Readings high and uniform over these Islands and low over the Baltic. Rather brisk fall occurring in the N. later.

Wednesday, November 5.

Weather fine, except in the S.W. and at a few of our central stations. Sky becoming cloudy and showery in the N.W. later, but clear all day in E.

Temperature fallen in the N.E. and S.E., risen in the W. and changed little over France. Readings exceedingly uniform. Maxima between 50° and 53° generally.

Wind northerly on our S.W. coasts and easterly over France but north-westerly to westerly in most other places moderate to strong on most of our coasts and over the North Sea, and blowing a gale in the Shetlands.

Sea rough at Mullaghmore, the Shetlands, and Christiansund.

Barometer risen a little on our S.W. coasts and over the Bay of Biscay, fallen generally, large depression shown over Norway. Recovery taking place later, and pressure as high as 30·69 ins. at Valentia.

Thursday, November 6.

Weather clear in the Hebrides and over the Skager Rack, fine on our S.E. coasts, and at many French stations, dull generally. Fair all day in the E., slight showers in the W.

Temperature fallen in the S.E., risen elsewhere, readings ranging from 40° over south-eastern England, to 52° at Scilly, and 50° at Nairn. Maxima between 50° and 55° on all coasts.

Wind north-westerly on all our coasts and over the North Sea, and generally fresh or strong in force, except in the south-east. North-westerly breezes all day.

Sea moderate to smooth, except at Stornoway.

Barometer rising in the S.W. and S., and over France, but falling a little generally; readings exceptionally high off our S.W. coasts. Pressure increasing, except in the S.E., during the day.

Friday, November 7.

Weather fine in N. and E., but dull in the W. and S.W. Dull on the continent. Very fine all day in the E., and no rain falling except in the Shetlands. Dense fog at night.

Temperature fallen over the N.E. of England and E. of Scotland, changed little in other districts: readings ranging from 41° in York and London, to 51° in the S.W., and 50° in the N. Maxima as high as 58° at Leith and 56° at Aberdeen, between 50° and 55° elsewhere.

Wind north-westerly to northerly over nearly the whole of our area, but south-westerly at Christiansund. Moderate to light on our coasts. Wind backing to W. in Scotland later, and to S. and S.W. in Ireland.

Sea moderate to smooth, except off the Hebrides and Shetlands.

Barometer falling at Christiansund, rising in nearly all other places. Pressure still uniform, and exceedingly high in the S.W. Rather brisk fall taking place in Ireland later, and anticyclone moving eastward.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, November 8.

Weather cloudy or dull in almost all places, with fog and mist in the E. and over France. Dull, foggy, and misty all day, with slight rain in the N.W. and N.

Temperature risen in the S.W., fallen elsewhere; readings ranging from 41° in London and 35° at Aberdeen, to 51° in the S.W. Maxima below 50° in the E., slightly above in the W.

Wind southerly over Ireland and the W. of England, westerly in the N., north-westerly over the North Sea, and easterly over France. Moderate in force. Wind backing in the W. later and blowing freshly.

Sea rough at Valentia and Sumburgh Head, slight or smooth generally.

Barometer falling except in N. Germany. Large anti-cyclone lying over England and France. Pressure decreasing all day.

Sunday, November 9.

Weather dull or cloudy generally, with mist or fog at a few of the western stations. Dull all day and rain falling, except in the S.E.

Temperature fallen over France, risen over these Islands, readings ranging from 40° at York, to 54° at Valentia and 53° at Nairn. Maxima during day between 50° and 55°.

Wind southerly over Ireland and England, and westerly in N. Scotland; fresh in force except in the S.E. Little change during day but wind falling lighter.

Sea rough in the W. and N.

Barometer falling over the whole of western Europe. Large area of high pressure lying over central Europe and extending to our S.E. coasts, with depression to the northward of Scotland. Pressure increasing fast in N. later, but decreasing elsewhere.

Monday, November 10.

Weather fine and bright in the E. of Scotland and at most of our extreme western stations; dull with mist or drizzling rain elsewhere. Little change later.

Temperature risen over France, fallen over these Islands—very fast in Scotland. Readings ranging between 36° at Wick and 54° at Scilly. Maxima during the day below 50° over Scotland, the E. of England, and our N.W. coasts, between 50° and 55° elsewhere.

Wind northerly in Ireland, westerly in Scotland, and south-westerly to southerly in the S. and E.; moderate or light in force generally. Westerly breezes in Scotland, and northerly breezes elsewhere during day.

Sea moderate to smooth on our coasts.

Barometer risen in the N. and W., fallen in the S. and E. Readings highest off our S.W. coasts, with subsidiary depressions passing across England and the North Sea. Brisk fall commencing in the N. later, but barometer rising elsewhere.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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VOL. II. No. 46.] WEEK ENDING MONDAY, NOVEMBER 17, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia. Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	58	23	40	1 below.	3	3	3 less.
	2. ENGLAND, NORTH-EAST	55	25	39	3 below.	2	2	2 less.
	3. ENGLAND, EAST	55	17	37	6 below.	2	1	4 less.
	4. MIDLAND COUNTIES	56	17	37	6 below.	2	1	4 less.
	5. ENGLAND, SOUTH	53	17	38	6 below.	2	1	5 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	57	24	42	1 below.	3	5	5 less.
	7. ENGLAND, NORTH-WEST	55	25	41	3 below.	2	4	5 less.
	8. ENGLAND, SOUTH-WEST	53	27	44	3 below.	1	1	8 less.
	9. IRELAND, NORTH	55	29	43	1 below.	3	2	?
	10. IRELAND, SOUTH	57	31	46	2 above.	2	1	7 less.

General Remarks.

Weather during this period fine and bright on the whole in all districts; snow fell, however, in "Scotland, E.," on the 12th and 13th, and on some days squally weather was experienced in several places.

Temperature 2° above the average in "Ireland, S.," but below it in all other districts, as much as 6° below over the greater part of England. Highest maxima occurred on the 17th and the lowest minima on the 15th or 16th. In London the thermometer exposed on the grass fell to 13° during the night of the 16th.

Rainfall very slight generally, being less than the average all over the kingdom.

Wind north-westerly in the E., but westerly or south-westerly at the more western stations; moderate in force generally, but occasionally strong to a gale in the N.W. and N.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	55	25	39·2	− 1·3	4	0·26	−0·27
	Aberdeen	58	32	40·2	− 1·2	3	0·40	−0·28
	Glenalmond	56	23	39·0	− 1·7	3	0·16	?
	Leith	55	26	41·0	+ 0·2	2	0·20	−0·27
2. ENGLAND, N.E.	Shields	54	30	40·0	− 2·4	3	0·54	−0·11
	Durham	55	26	38·8	− 4·2	0	—	0·00
	York	53	25	38·3	− 4·4	1	0·15	−0·42
	Spurn Head	51	34	41·1	− 1·4	2	0·12	?
	Kelstern (Lincolnshire) ℳ	50	28	38·0	− 4·6	2	0·10	−0·43
3. ENGLAND, E.	Yarmouth	49	26	38·2	− 5·1	4	0·24	−0·48
	Cambridge	55	21	37·9	− 4·7	1	0·08	−0·38
	Audley End (Saffron Walden) ℳ	51	17	35·9	− 7·4	1	0·02	−0·46
	Rothamsted	49	19	37·2	− 6·2	3	0·10	−0·38
4. MIDLAND COUNTIES	Nottingham	56	17	35·8	− 7·0	1	0·07	−0·41
	Loughborough	54	20	37·3	− 5·6	1	0·08	−0·42
	Leicester	52	24	38·1	− 4·7	2	0·10	−0·39
	Shrewsbury ℳ	?54	19	36·9	− 6·4	2	0·18	−0·36
	Hereford ℳ	55	20	38·3	− 5·5	2	0·07	−0·53
	Cirencester	54	23	37·1	− 6·2	1	0·04	−0·57
	Oxford	52	22	38·2	− 5·0	3	0·08	−0·38
5. ENGLAND, S.	London	52	19	37·3	− 6·6	2	0·03	−0·41
	Marlborough ℳ	50	20	37·5	− 6·3	1	0·14	−0·46
	Strathfield Turgiss ℳ	51	17	36·2	− 7·5	2	0·13	−0·37
	Dover	53	29	40·1	− 4·4	4	0·13	−0·76
	Hastings	49	30	38·7	− 5·7	1	0·02	−0·64
	Hurst Castle	52	26	38·7	− 6·5	1	0·01	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	57	29	44·0	+ 1·5	3	0·86	?
	Glasgow	54	26	40·1	− 2·1	3	0·33	−0·54
	Ardrossan	54	29	41·2	− 1·3	3	0·30	−0·63
	Silloth (Cumberland)	51	24	39·8	− 3·6	3	0·56	−0·09
	Douglas (Isle of Man)	55	28	43·2	− 0·7	4	0·33	−0·69
7. ENGLAND, N.W.	Stonyhurst	51	27	38·6	− 4·3	3	0·64	−0·52
	Manchester	53	25	38·9	− 3·9	2	0·59	−0·26
	Liverpool Observatory (Bidston)	52	28	41·0	− 2·8	2	0·11	−0·49
	Holyhead	55	36	45·5	+ 0·3	2	0·10	−0·66
8. ENGLAND, S.W.	Pembroke	53	37	46·4	+ 0·2	1	0·08	−0·82
	Barnstaple	53	27	42·8	− 3·0	2	0·23	−0·61
	Falmouth	53	37	44·9	− 3·4	1	0·01	−1·21
	Plymouth	52	31	41·4	− 5·6	2	0·07	−0·73
	Prawle Point	53	34	43·9	− 3·1	1	0·14	?
9. IRELAND, N.	Londonderry	55	29	43·2	0·0	3	0·25	−0·64
	Mullaghmore	54	32	44·4	+ 0·9	2	0·20	?
	Brookeborough	55	29	42·2	− 1·2	2	0·14	?
	Armagh	54	32	42·3	− 1·4	3	0·07	−0·53
	Donaghadee	55	30	41·9	− 1·6	3	0·13	?
10. IRELAND, S.	Dublin	55	31	43·5	− 0·5	2	0·09	−0·56
	Kingstown	57	35	45·2	+ 1·0	3	0·08	−0·48
	Parsonstown	55	31	44·0	0·0	2	0·13	−0·47
	Roche's Point	56	40	47·7	+ 2·5	1	0·15	−0·98
	Valentia	55	45	50·2	+ 5·2	3	0·17	−0·98
	Foynes	52	38	45·0	+ 0·8	3	0·05	?
SCOTLAND, N.	Sumburgh Head	52	29	41·0	− 0·5	5	0·95	+0·35
	Stornoway	53	30	41·6	− 0·6	5	1·04	+0·02
	Wick	56	24	39·8	− 2·0	5	0·70	−0·05
——	Scilly (St. Mary's)	55	45	49·5	+ 0·7	1	0·04	−0·93
	Jersey (Noirmont)	53	36	44·0	− 4·5	2	0·14	−0·58

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending November 17, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, November 11.

Weather fine over the E. of Scotland, Denmark, and Sweden, and at some of the south-eastern stations; cloudy or dull elsewhere, with fog and mist over France and rain in N. Scotland. Rain very general during day.

Temperature risen on our W. and N. coasts and over France, fallen elsewhere—several degrees over England and rapidly over Sweden. Readings ranging over these Islands from 35° at Nottingham to 51° at Valentia. Maxima between 45° and 50° generally.

Wind westerly on our western coasts, and south-westerly to southerly in the E.; light in force in the E., but strong in the W., and blowing a gale in the N.W. Increasing during day, and gale in W. and N. at night.

Sea rough in the W. and N.W.

Barometer fallen quickly at all the more northern stations, and slightly in the S. Large depression to the northward of Scotland. Slight recovery in W. at night, but barometer still falling elsewhere.

Wednesday, November 12.

Weather very fine over nearly the whole of these Islands, but cloudy at most of the Continental stations, with rain at Lyons and Rochefort. Slight rain and snow in the N. later, but weather generally fair.

Temperature risen somewhat over France and the S. of England, fallen several degrees in the N. and W. Readings ranging from 35° in the Shetlands to 51° at Scilly. Maxima below 50° except in the extreme S.W.

Wind northerly all over these Islands and north-westerly over France; strong to a gale in force. Very little change later, and wind everywhere fresh or strong.

Sea rough except off the E. of Scotland and S. of Ireland, and high off Holyhead.

Barometer fallen rapidly over N. Germany and the south-eastern stations, risen elsewhere—quickly in the N. Large depression lying over the eastern shores of the North Sea. Pressure increasing all day.

Thursday, November 13.

Weather very fine over nearly the whole of these Islands and neighbouring Continental coasts, but snow falling at Aberdeen and rain in Sweden. Weather fine all day though rather cloudy in the W.

Temperature risen a little in N. Sweden, fallen in most other places, readings ranging from 34° in London and the Shetlands, to 50° at Scilly. Maxima during day below 50° except in the S.W., and below 40° in the N.

Wind northerly (N.W.—N.E.) all over western Europe, and strong in force in the S.E. and over the North Sea. Light southerly breeze appearing in the S. of Ireland during the day, but little change elsewhere.

Sea high at Aberdeen and the mouth of the Humber, rather rough in the E. generally.

Barometer risen in nearly all places—rapidly in Norway and the Shetlands, briskly generally. Large area of high readings over our western stations, with depression over the Baltic. Slight decrease occurring in the S.W. later.

Friday, November 14.

Weather fine and bright in nearly all places, but dull in W. Ireland and at Scilly, and snowy at Wisby. Weather very fine all day except in the S.W., where it was dull, and the S.E., where slight snow showers occurred in the evening.

Temperature risen in the W., fallen elsewhere,—quickly at the inland stations, readings ranging from 25° at Nairn, and 26° in London, to 48° in the S.W. Maxima considerably below 50°, except in S. Ireland and the S.W. of England. Very sharp frost at night.

Wind light and variable over the greater part of these Islands, but light southerly breezes reported in the W., and fresh northerly winds in the S.E. and over the North Sea. Southerly wind in the W. freshening.

Sea rough in the W. and off Christiansund.

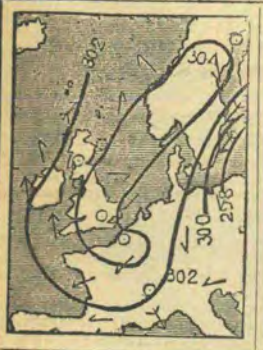
Barometer falling a little in Ireland, risen elsewhere. Arm of high pressure extending southward from Scandinavia over the British Isles to N.W. France, and rather deep depression shown over the Baltic. Pressure giving way in the W., but increasing slowly elsewhere.

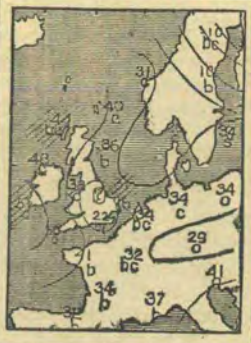
(Continued over.)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.





Saturday, November 15.

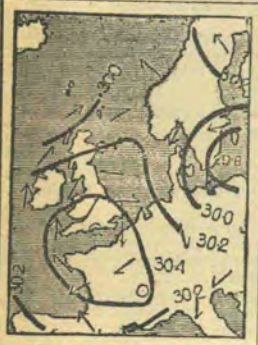
Weather very fine at most of the stations on the eastern shores of the North Sea, as well as over the greater part of Scotland, England, and France, but overcast on our western coasts. Snow falling at Wisby.

Temperature fallen briskly France and Central England, risen quickly on our northern and western coasts. Sharp frost at inland stations; readings ranging from 51° at Valentia, to 19° at Nottingham. Temperature low all day England.

Wind northerly Scandinavia, easterly over France, southerly on our western coasts, and light and variable in the E. Blowing strongly over the Baltic, and freshly on our western coasts. Southerly wind spreading eastward later.

Sea rough at Valentia, Stornoway, and Spurn Head.

Barometer falling on our north-western coasts, and at Biarritz, rising elsewhere,—quickly over Scandinavia. Narrow band of high pressure stretching south-westward from the Gulf of Bothnia, over the North Sea and England, to N. France. Decrease in the N.W. gradually spreading.



Sunday, November 16.

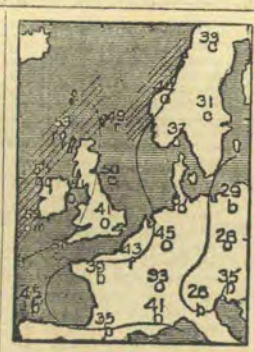
Weather fine over Denmark, N. Germany, France, and some of our eastern and southern stations, cloudy or dull in most other places. Cloudy or dull generally later with slight rain in the N. Weather foggy S.E.

Temperature fallen over France, risen elsewhere, readings ranging from 52° at Valentia and 49° at Stornoway to 26° in London and 28° at Biarritz. Temperature low in the S.E. and high in the W. and N. all day.

Wind fresh from the southward in the W. and N., very light from the W. or S.W. in the E., moderate or fresh from N. over Scandinavia and Denmark and from E. over France. Little change during day, but south-westerly wind reaching a gale in the Shetlands.

Sea rough Valentia and Stornoway.

Barometer falling at all our northern and eastern stations and over the North Sea, rising over France and our S.W. coasts. Area of high pressure over England and France, with depressions off our N.W. coasts and over the Baltic. Pressure giving way all day.



Monday, November 17.

Weather still fine over France, but dull or cloudy elsewhere, with rain on our northern coasts and over Holland. Weather subsequently clearing in N.E.

Temperature risen nearly everywhere, rapidly at our central stations. Readings ranging from 53° at Valentia and Stornoway to 41° in London and 33° at Lyons. Maxima between 50° and 55° generally, but reaching 58° at Aberdeen.

Wind westerly over these Islands but drawing into S. over Scandinavia, and into N.W., N., and E. over France. Blowing a gale at Mullaghmore and Skudesnaes, moderate to fresh elsewhere. Wind veering west-north-westward in the N. later.

Sea rough on the Atlantic shores of the British Isles and Norway.

Barometer falling over the whole of western Europe—quickly in N. Scotland. Anticyclone lying over western half of Channel, the N.W. of France, and the Bay of Biscay. Large depression off our northern coasts. Pressure recovering in the N.W. later.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⇒ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—11/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 47.] WEEK ENDING MONDAY, NOVEMBER 24, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.)				Rainfall. (Amounts in tenths of an inch.)		
		Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	58	32	43	3 above.	5	8	4 more.
	2. ENGLAND, NORTH-EAST	58	24	40	2 below.	6	7	1 more.
	3. ENGLAND, EAST	55	19	37	7 below.	6	7	1 more.
	4. MIDLAND COUNTIES	60	18	37	5 below.	5	6	1 more.
	5. ENGLAND, SOUTH	56	17	38	6 below.	4	6	0 (average).
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	57	29	43	1 above.	3	4	5 less.
	7. ENGLAND, NORTH-WEST	55	21	42	2 below.	5	7	1 less.
	8. ENGLAND, SOUTH-WEST	62	30	44	3 below.	4	10	2 more.
	9. IRELAND, NORTH	58	27	45	2 above.	3	2	?
	10. IRELAND, SOUTH	58	30	46	2 above.	3	5	3 less.

General Remarks.

Weather fair during the first two days of this period, but afterwards dull and unsettled, with much fog at times in the S.E. A good deal of snow fell over the greater part of England on the 20th and 21st.

Temperature a few degrees above the average in Scotland and Ireland, but below in all other districts, the deficit ranging from 5° to 7° in the eastern, central, and southern parts of England. Highest maxima occurred on the 18th or 19th, and the lowest minima during the last three days; the minimum at Hereford on the 18th was 49°, while that on the 22nd was as low as 19°.

Rainfall less than the average in "Ireland, S.," but more in all other districts except "England, S.," where the fall just equalled the average.

Wind north-westerly on the 18th, but north-easterly to easterly on the following days; moderate to light in force generally, but strong on the 20th and 21st, and reaching a gale on the E. coast of England.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	56	36	43·4	+ 5·6	4	1·12	+0·61
	Aberdeen	54	35	43·0	+ 2·5	6	0·90	+0·21
	Glenalmond	58	32	40·8	+ 1·0	4	0·57	?
	Leith	58	36	43·8	+ 3·8	6	0·73	+0·26
2. ENGLAND, N.E.	Shields	56	29	41·5	+ 0·2	7	0·93	+0·24
	Durham	58	26	39·4	− 2·9	6	0·75	+0·06
	York	58	24	37·9	− 3·7	6	0·53	−0·04
	Spurn Head	49	31	40·0	− 2·0	4	0·54	?
	Kelstern (Lincolnshire) ℳ							
3. ENGLAND, E.	Yarmouth	49	29	37·4	− 6·2	7	0·82	+0·04
	Cambridge	55	24	36·9	− 7·0	5	0·66	+0·28
	Audley End (Saffron Walden) ℳ							
	Rothamsted	53	19	35·6	− 7·9	6	0·54	+0·07
4. MIDLAND COUNTIES	Nottingham	56	20	36·7	− 5·1	7	1·11	+0·62
	Loughborough	55	20	36·8	− 5·3	7	0·64	+0·15
	Leicester	55	24	38·0	− 3·6	7	0·66	+0·17
	Shrewsbury ℳ	57	18	37·9	− 4·6	5	0·73	+0·21
	Hereford ℳ	60	19	38·7	− 4·3	5	0·46	−0·16
	Cirencester	55	25	37·1	− 5·1	2	0·26	−0·34
	Oxford	53	24	36·5	− 5·7	5	0·53	+0·12
5. ENGLAND, S.	London	55	24	36·5	− 7·3	5	0·64	+0·21
	Marlborough ℳ	55	25	38·7	− 4·8	5	0·33	−0·28
	Strathfield Turgiss ℳ	54	17	36·1	− 7·7	3	0·58	+0·10
	Dover	50	31	39·3	− 3·7	4	0·31	−0·59
	Hastings	54	29	38·2	− 5·0	6	1·05	+0·45
	Hurst Castle	56	30	39·6	− 4·5	3	0·22	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	53	31	43·0	+ 1·2	2	0·26	?
	Glasgow	55	35	43·3	+ 1·4	4	0·20	−0·69
	Ardrossan	54	31	43·0	+ 1·4	3	0·12	−0·78
	Silloth (Cumberland)	52	29	40·7	− 1·8	2	0·60	0·00
	Douglas (Isle of Man)	57	31	44·4	+ 1·2	3	0·56	−0·44
7. ENGLAND, N.W.	Stonyhurst	53	28	39·7	− 2·6	5	0·39	−0·73
	Manchester	55	21	38·5	− 3·5	4	0·62	−0·24
	Liverpool Observatory (Bidston)	51	29	41·5	− 2·3	5	0·82	+0·29
	Holyhead	55	39	46·2	+ 2·0	7	1·12	+0·45
8. ENGLAND, S.W.	Pembroke	57	31	44·1	− 1·4	4	0·48	−0·40
	Barnstaple	57	30	42·8	− 3·2	3	0·57	?
	Falmouth	55	31	44·0	− 3·2	6	2·31	+1·12
	Plymouth							
	Prawle Point	62	30	43·2	− 2·7	3	0·55	−0·27
9. IRELAND, N.	Londonderry	57	31	44·7	+ 1·5	5	0·24	−0·61
	Mullaghmore	56	39	46·0	+ 3·2	3	0·10	?
	Brookeborough	55	27	42·8	− 0·1	2	0·09	?
	Armagh	56	32	43·4	+ 0·2	3	0·36	−0·22
	Donaghadee	58	38	46·3	+ 3·4	1	0·05	?
10. IRELAND, S.	Dublin	55	37	45·6	+ 2·1	4	0·60	−0·01
	Kingstown	57	39	46·8	+ 3·3	5	0·50	−0·08
	Parsonstown	58	30	43·5	− 0·2	4	0·37	−0·23
	Roche's Point	56	37	46·0	+ 2·0	2	0·83	−0·33
	Valentia	57	37	46·5	+ 2·1	3	0·24	−0·88
	Foynes	55	36	45·6	+ 1·6	1	0·21	?
SCOTLAND, N.	Sumburgh Head	51	36	43·0	+ 1·8	6	0·31	−0·30
	Stornoway	54	34	43·0	+ 1·2	4	0·30	−0·70
	Wick	56	37	43·6	+ 2·3	6	0·75	−0·02
——	Scilly (St. Mary's)	56	39	47·1	− 0·9	5	2·27	+1·29
	Jersey (Noirmont)	55	31	43·1	− 4·5	5	0·50	−0·22

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending November 24, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, November 18.

Weather fine at all our more eastern stations and in S. France, cloudy or dull in most other places, with rain and fog in N. Germany. Weather generally fair all day, but slight rain in a few places.

Temperature fallen a little in the N., but risen generally. Readings ranging from 54° at Kingstown to 39° at Aberdeen and 36° at Lyons. Maxima high, 62° at Prawle Point, and between 50° and 58° elsewhere.

Wind southerly to south-westerly on our extreme western and northern coasts, westerly to north-westerly elsewhere; moderate in force at most ports. Light breezes from N. in the S., and from W. in the N. during day.

Sea rough in the extreme S.W.

Barometer falling over France and N. Germany, rising elsewhere. Readings high over the Bay of Biscay and the Baltic, low over N. Germany and to the northward of Scotland. Pressure increasing all day.

Wednesday, November 19.

Weather cloudy or dull except at a few south-eastern stations, with fog, mist, or drizzling rain in many places. Dull during day but clearing considerably at night. Slight rainfall in Scotland and N. England.

Temperature risen on our N.E. coasts and in S. France, fallen elsewhere. Readings ranging from 54° in the S.W. to 42° at Oxford and 44° at Stornoway. Maxima between 50° and 55° in the S.W. and W., below 50° elsewhere.

Wind light and variable on our northern coasts, north-easterly in the S. and over France; moderate in force. Wind becoming fresh from E. over the Channel later in day.

Sea moderate to smooth.

Barometer falling all over France and our S. and S.W. coasts, rising elsewhere—quickly in Scandinavia. Pressure increasing in the N. and decreasing in the S. all day.

Thursday, November 20.

Weather dull or cloudy generally, with snow and hail in the S.E. Sky moderately clear in the W. and N. later, but snow all day in the S.E. and S.

Temperature fallen everywhere—most over France; readings ranging from 40° at Scilly and 48° at Stornoway, to 33° at Oxford. Maxima below 50° everywhere, and below 40° in the S.

Wind easterly over nearly the whole of western Europe, light in force in the N. but strong to a gale in the E. and S. Strong easterly winds all day.

Sea rough E., S.E., and S.W.

Barometer still rising over Scandinavia and the E. of Scotland, falling elsewhere. Large area of high pressure (30·7 ins.) over Scandinavia, depression over S. France. Pressure giving way everywhere later.

Friday, November 21.

Weather fine at Nairn and Stornoway, dull elsewhere, with rain and snow over the E. of England. Heavy snow all day in the S.E. of England, but weather fine and bright in N. and W.

Temperature fallen quickly generally, readings ranging from 33° at Oxford, to 49° at Scilly and 48° in the Hebrides. Maxima during day below 50° everywhere, and below 40° in southern and central districts.

Wind north-easterly to northerly in the N. and W., but westerly in the N. of France, southerly at Cape Gris Nez, and south-easterly in the S.E. of England, while easterly winds prevail over S. France. Fresh or strong except in S.E. No change later.

Sea high in the E. and N.W., rough in the W. and S.W.

Barometer falling everywhere—quickly over England. Pressure highest over Sweden, with a large disturbance over England and the Channel and a second over Spain. Barometer falling all day and English depression moving southward.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, November 22.

Weather very unsettled, sky clear at several stations, yet with snow falling at Shields, Liverpool, Yarmouth, and in London. Rain or snow fell during day, except in the S. and S.W.

Temperature fallen considerably over England, risen elsewhere; readings varying from 21° at Nottingham, to 46° in the S.W. and W. Maxima only 32° at Nottingham, and 33° at York and in London.

Wind moderate from the northward in the N. and W., and from the southward in the E. and over the North Sea. Light and variable breezes prevailing in the evening.

Sea high at Aberdeen, rough at the mouth of the Humber and in the Straits of Dover.

Barometer rising slowly over France, the S. of England, and N. Germany, falling elsewhere. The depression noticed on the 21st shown over Scotland and the N. of England. Disturbance moving northward later, and barometer rising except N.

Sunday, November 23.

Weather fine and bright in the N.E. of England and the N. and E. of Scotland, cloudy elsewhere, with dense fog in the S. of England and N. of France, and rain over the Bay of Biscay. Rain, except in the S.E., during day.

Temperature fallen at our centre and eastern districts, risen elsewhere,—quickly W. of England. Readings ranging from 24° at Nottingham, to 48° at Scilly. Temperature rising towards evening.

Wind northerly generally, but very light and variable over central England. Wind shifting to S. in Channel later, but remaining northerly to north-easterly in most places.

Sea rough Stornoway, moderate to smooth elsewhere.

Barometer falling briskly Valentia, as well as on eastern shores of North Sea, rising elsewhere. Readings highest off our S.W. coasts. Small depression shown over S. Ireland in evening.

Monday, November 24.

Weather fine on our W. and N.W. coasts and at Yarmouth and Spurn Head, dull elsewhere, with fog in the S. and rain at Pembroke. Rain falling at all but a few of our western stations later—heavily in the S.W.

Temperature several degrees lower on our western coasts, over Scandinavia, and S. France, risen elsewhere. Readings ranging from 29° at York to 48° at Scilly. Maxima between 40° and 45° generally, but only 37° in London and 39° at Cambridge.

Wind southerly in the S.W., easterly to north-easterly generally, fresh in force in the W. and S.W. and over Scandinavia, light on our E. coasts. Wind backing in the S.W. later and blowing from E. at nearly all stations.

Sea rough in the N.E. of Scotland.

Barometer risen rapidly over Scandinavia and briskly over the greater part of these Islands, fallen in the S. and over France. Depression noticed near Ireland shown over the Scilly Islands and lying there all day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟩⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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[48.—150.—11/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 48.] WEEK ENDING MONDAY, DECEMBER 1, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	43	25	35	5 below.	4	3	1 less.
	2. ENGLAND, NORTH-EAST	45	18	35	6 below.	7	6	0 (average).
	3. ENGLAND, EAST	42	23	34	8 below.	5	5	1 less.
	4. MIDLAND COUNTIES	43	19	33	9 below.	2	2	3 less.
	5. ENGLAND, SOUTH	44	21	34	9 below.	2	1	4 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	44	19	34	7 below.	1	1	8 less.
	7. ENGLAND, NORTH-WEST	44	24	36	7 below.	2	1	7 less.
	8. ENGLAND, SOUTH-WEST	45	26	37	8 below.	1	1	7 less.
	9. IRELAND, NORTH	46	14	36	7 below.	2	1	?
	10. IRELAND, SOUTH	46	21	38	5 below.	3	2	5 less.

General Remarks.

Weather generally fine and bright except in the E. and N. Heavy snow fell on our E. and N.E. coasts during the latter part of the period and showers of snow, hail, or sleet occasionally in almost all parts of the kingdom.

Temperature below the average in all districts, the deficit being as much as 9° over the greater part of England and from 5° to 8° elsewhere. The lowest minimum readings occurred in most places on December 1st; at Brookeborough the thermometer went as low as 14°, and at Durham to 18°.

Rainfall equal to the average in "England, N.E.," but less in all other districts, considerably so in the W. The fall was composed almost entirely of snow, sleet, or soft hail (Graupel).

Wind north-easterly to northerly generally and moderate to fresh in force, but occasionally strong in the E. and S. and reaching the force of a gale at times in the S.W. of England, as well as on some parts of our E. coast on December 1st.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	40	28	33·5	− 6·3	3	0·13	−0·37
	Aberdeen	42	28	35·7	− 4·0	5	0·93	+0·24
	Glenalmond	43	25	33·7	− 5·8	1	0·02	?
	Leith	42	29	35·5	− 4·2	5	0·28	−0·14
2. ENGLAND, N.E.	Shields	44	28	35·2	− 5·3	7	0·93	+0·35
	Durham	43	18	33·1	− 8·5	7	0·50	−0·22
	York	45	23	34·4	− 6·3	5	0·31	−0·26
	Spurn Head	45	28	36·8	− 4·0	7	0·76	?
	Kelstern (Lincolnshire) ℳ							
3. ENGLAND, E.	Yarmouth	42	28	36·0	− 5·6	7	1·24	+0·44
	Cambridge	41	23	32·7	− 8·8	4	0·11	−0·30
	Audley End (Saffron Walden) ℳ							
	Rothamsted	39	24	32·7	− 9·1	3	0·08	−0·45
4. MIDLAND COUNTIES	Nottingham	43	22	33·2	− 8·0	3	0·17	−0·33
	Loughborough	42	23	33·3	− 8·5	4	0·24	−0·24
	Leicester	43	24	33·9	− 7·1	5	0·38	−0·11
	Shrewsbury ℳ	40	19	31·6	−10·5	1	0·03	−0·47
	Hereford ℳ	41	22	33·7	− 8·7	0	—	−0·62
	Cirencester	39	21	33·1	− 8·9	1	0·07	−0·55
	Oxford	41	24	33·5	− 8·3	3	0·35	−0·05
5. ENGLAND, S.	London	42	22	33·3	− 8·6	2	0·06	−0·34
	Marlborough ℳ	40	22	32·9	− 8·9	2	0·06	−0·55
	Strathfield Turgiss ℳ	42	21	32·2	− 9·9	2	0·14	−0·31
	Dover	44	26	35·3	− 6·7	4	0·12	−0·28
	Hastings	42	21	33·3	− 9·2	2	0·02	−0·59
	Hurst Castle	40	24	34·4	− 9·4	0	—	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	42	19	32·0	− 9·6	2	0·39	?
	Glasgow	41	27	34·4	− 6·7	1	0·01	−0·89
	Ardrossan	42	26	35·1	− 5·9	0	—	−0·87
	Silloth (Cumberland)	42	25	34·0	− 7·7	0	—	−0·60
	Douglas (Isle of Man)	44	24	35·9	− 6·8	2	0·03	−0·74
7. ENGLAND, N.W.	Stonyhurst	41	24	33·6	− 9·3	2	0·03	−1·09
	Manchester	42	25	33·8	− 7·3	1	0·02	−0·76
	Liverpool Observatory (Bidston)	42	30	34·6	− 7·4	0	—	−0·47
	Holyhead	44	36	39·8	− 3·2	3	0·18	−0·65
8. ENGLAND, S.W.	Pembroke	45	31	37·0	− 8·2	2	0·11	−0·76
	Barnstaple	43	27	37·0	− 7·0	0	—	−0·84
	Falmouth	43	32	37·7	− 8·5	1	0·25	−0·36
	Plymouth	42	26	36·5	− 9·3	1	0·01	−0·79
	Prawle Point	44	26	36·9	− 8·7	2	0·06	?
9. IRELAND, N.	Londonderry	42	20	35·2	− 7·5	3	0·19	−0·65
	Mullaghmore	46	35	40·1	− 2·4	2	0·14	?
	Brookeborough	41	14	31·6	−11·0	1	0·18	?
	Armagh	41	22	34·1	− 8·8	3	0·11	−0·51
	Donaghadee	44	30	39·0	− 3·8	1	0·02	?
10. IRELAND, S.	Dublin	45	27	37·8	− 5·4	3	0·19	−0·38
	Kingstown	45	29	40·5	− 2·5	5	0·50	−0·07
	Parsonstown	41	21	34·3	− 3·5	2	0·08	−0·56
	Roche's Point	44	32	38·4	− 5·3	1	0·07	−0·62
	Valentia	46	29	39·3	− 4·6	2	0·20	−0·89
	Foynes							
SCOTLAND, N.	Sumburgh Head	42	27	35·2	− 5·8	6	0·23	−0·43
	Stornoway	42	27	34·8	− 6·8	4	0·18	−0·90
	Wick	46	21	34·5	− 6·3	5	0·24	−0·53
——	Scilly (St. Mary's)	47	38	41·8	− 5·4	4	0·49	−0·41
	Jersey (Noirmont)	43	31	36·7	−10·0	2	0·08	−0·64

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending December 1, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, November 25.

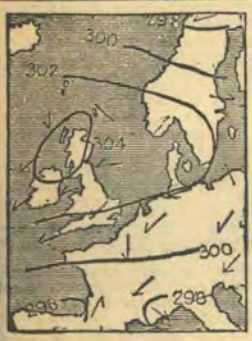
Weather fine in Scotland, Ireland, and at many continental stations, dull over England with sleet showers in the N.E. Sky clear generally later, but slight showers falling in the E.

Temperature risen fast in Lapland, fallen S. Scandinavia and over France, changed irregularly elsewhere; readings varying from 31° at Cambridge to 45° at Scilly. Maxima between 40° and 45°. Slight frost in E. at night.

Wind easterly over nearly the whole of our area but drawing into N.E. at Valentia and into S.E. at Sumburgh Head. Fresh or strong, except in the S.E. and extreme N., rising to a gale at Scilly later. Little other change.

Sea high at Shields, rough in the S., S.W., and W.

Barometer falling over France, rising elsewhere. Large area of high pressure lying over Scandinavia and the N. of the British Isles, with a depression over N. Spain. Pressure giving way in N. as well as over France later.



Wednesday, November 26.

Weather clear in S. Sweden, over Denmark, and at some of our northern and south-western stations, dull elsewhere, with hail and snow showers over central and eastern England. Weather fine all day, W., but snow showers in E.

Temperature risen Scandinavia, fallen elsewhere. Readings low, ranging over these Islands from 28° at Nairn and 32° at Cambridge to 40° at Kingstown. Maxima between 35° and 43°, and slight frost again in E.

Wind westerly in Norway and Sweden and north-westerly in Scotland, easterly over England, Ireland, and France; strong in South. Wind backing towards N., except in the S.W. later.

Sea rough to high on our E. coast, rough in the S.W.

Barometer rising over the W. of France and our S.W. coasts, falling elsewhere—quickly over Scandinavia. Area of highest pressure now lying over Scotland, with depressions over Lapland and S. France. Pressure giving way all day.

Thursday, November 27.

Weather varying considerably, fine over central England, the S. of Ireland, and N.E. of France, more or less cloudy elsewhere. Slight rain or snow in the N. and E.; cloudy but dry generally.

Temperature fallen in the N. of Scandinavia and over France, risen elsewhere. Readings low over France and the Netherlands, and varying over these Islands from 30° at Cambridge to 42° at Holyhead. Maxima between 40° and 45°.

Wind northerly on most coasts, but easterly in the S.W.; fresh or strong in force, except in the S.E., and blowing a gale at Scilly; little change later, gale at Scilly still holding.

Sea rough to high in the N.E., rough in the S.W. and N.W.

Barometer rising in Scotland, falling in all other places. Readings highest off our N.W. coasts, and low over the Baltic and S. of France. Pressure decreasing slowly but generally later.

Friday, November 28.

Weather varying very considerably but fine at the majority of stations, snow falling at Christiansund and rain at Toulon. Slight showers of snow or hail in the N. and E. later.

Temperature fallen in most places. Readings low generally, particularly over Scandinavia, ranging over these Islands from 28° at Cambridge, to 40° at Wick and 43° at Kingstown. Maxima between 40° and 45°; slight frost at night.

Wind moderate from N. on most of our coasts, strong to a gale from E. over France and from W. in Norway. Little change during day; hard gale on our S.W. coasts.

Sea rough in the N.E., N.W., and S.W., and high in the Bay of Biscay.

Barometer falling everywhere—slightly on most coasts, briskly in Scandinavia. Readings highest off the W. of Ireland, with depressions over Sweden and Spain. Gradients steep over France.

(Continued over.)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Saturday, November 29.

Weather fine over N. Germany and our south-eastern and north-western coasts, cloudy or dull elsewhere, with snow in the N.E. and N. Snow showers all day in the N., weather fine generally.

Temperature risen over France and the Channel, fallen elsewhere; readings very low Sweden, and varying over these Islands from 33° in the E. to 43° at Mullaghmore. Maxima between 35° and 45°, and sharp frost in E. at night.

Wind northerly over the North Sea and nearly the whole of these Islands, but easterly over the Channel and France. Moderate to fresh generally, but strong to a gale in S.W. No change during day.

Sea rough in the N., N.E., and S.W., and high in the Bay of Biscay.

Barometer rising over Scandinavia, falling elsewhere; areas of high pressure off our western coasts and over Lapland. Depressions over S. France and the Baltic. Pressure increasing in the W. later, decreasing E.

Sunday, November 30.

Weather fine generally, but snow reported from E. Scotland and Yarmouth, and rain from Valentia. Snow all day in the E. and N., fine elsewhere.

Temperature fallen generally, and low over Great Britain; readings ranging from 26° at Oxford and 29° at Nairn to 46° at Scilly. Maxima between 30° and 40°, and sharp frost in our central and eastern stations at night.

Wind south-easterly over Scandinavia, northerly over these Islands and France; moderate to fresh in force generally. No change of importance during day.

Sea rough in the N., N.E., and S.W.

Barometer rising over the W. of France and Scandinavia, falling elsewhere. Readings relatively high off our western coasts and over the Gulf of Bothnia, with a depression over the North Sea and a second over S. France. Northern depression moving southward towards Yarmouth later.

Monday, December 1.

Weather varying considerably; fine and bright at most of our own and the French western stations, cloudy with snow showers in the E. Slight snow during the day in the northern, eastern, and central districts.

Temperature risen a little N., fallen considerably in S. and other places; readings varying over these Islands from 36° in London to 42° at Scilly and 35° at Wick. Maxima between 30° and 40°, and severe frost at night.

Wind northerly on our coasts and easterly over the North Sea; moderate to fresh in force generally, but easterly gale springing up at Yarmouth later in day. Westerly gale at Toulon all day.

Sea rough N.E. and S.W.

Barometer rising in Scotland and in the countries to the eastward of the North Sea, falling elsewhere. Depressions shown over the S.E. of England, and moving slowly southward over France during day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

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Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	41	7	27	12 below.	3	2	2 less.
	2. ENGLAND, NORTH-EAST	39	0	24	16 below.	2	3	3 less.
	3. ENGLAND, EAST	37	0	24	17 below.	3	3	3 less.
	4. MIDLAND COUNTIES	41	−2	23	19 below.	1	1	4 less.
	5. ENGLAND, SOUTH	39	10	28	14 below.	2	1	5 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	47	8	28	13 below.	2	2	6 less.
	7. ENGLAND, NORTH-WEST	45	13	29	14 below.	2	4	4 less.
	8. ENGLAND, SOUTH-WEST	45	21	34	11 below.	3	2	7 less.
	9. IRELAND, NORTH	47	9	30	13 below.	2	1	?
	10. IRELAND, SOUTH	51	10	33	11 below.	2	1	8 less.

General Remarks.

Weather generally fine over the whole country, but snow showers occurred at times at nearly all stations, and were heavy in some places on the 5th.

Temperature again exceedingly low in all districts; in the "Midland Counties" it was 19°, in "England, E.," 17°, and elsewhere from 11° to 16° below the mean for the time of year. The lowest minimum reading (−2°) occurred at Nottingham on the morning of the 7th, and at about the same time the thermometer was as low as zero at York and Cambridge, and 2° at Loughborough. The grass readings were several degrees lower.

Wind light from the westward in Scotland, but generally easterly elsewhere, excepting on the 5th and 6th when westerly to north-westerly breezes were experienced; moderate to fresh in force on most days, but blowing a fresh or strong gale in the S.W., S., and S.E. on the 3rd and 4th.

Rainfall again less than the mean in all districts, as much as eight tenths in "Ireland, S.," and seven tenths in "England, S.W.." The amounts measured consist almost wholly of snow.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	41	14	28·4	−11·6	4	0·41	−0·07
	Aberdeen	37	15	26·4	−12·8	3	0·23	−0·47
	Glenalmond	41	10	27·2	−12·0	0	—	?
	Leith	39	7	27·4	−12·1	3	0·26	−0·14
2. ENGLAND, N.E.	Shields	37	10	26·0	−13·8	2	0·46	−0·19
	Durham	38	4	22·6	−18·1	2	0·19	−0·57
	York	37	0	19·1	−21·3	3	0·28	−0·32
	Spurn Head	39	25	30·4	−10·1	1	0·01	?
	Kelstern (Lincolnshire) ✠	37	8	23·1	−17·4	3	0·32	−0·08
3. ENGLAND, E.	Yarmouth	37	15	27·2	−13·9	4	0·27	−0·52
	Cambridge	36	0	22·1	−18·8	3	0·56	+0·11
	Audley End (Saffron Walden) ✠							
	Rothamsted	36	5	24·0	−17·5	3	0·15	−0·33
4. MIDLAND COUNTIES	Nottingham	39	− 2	19·5	−21·5	1	0·28	−0·25
	Loughborough	37	2	17·9	−23·3	1	0·19	−0·31
	Leicester	38	3	21·5	−19·2	2	0·16	−0·33
	Shrewsbury ✠							
	Hereford ✠	41	14	26·6	−15·5	1	0·04	−0·64
	Cirencester	35	14	25·7	−16·3	0	—	−0·64
	Oxford	39	12	25·9	−15·7	2	0·13	−0·26
5. ENGLAND, S.	London	38	13	26·2	−15·3	2	0·04	−0·41
	Marlborough ✠	38	13	26·6	−14·9	1	0·04	−0·60
	Strathfield Turgiss ✠	38	10	25·6	−16·3	1	0·01	−0·46
	Dover	37	21	30·0	−11·2	3	0·13	−0·73
	Hastings	38	22	29·8	−12·1	2	0·12	−0·48
	Hurst Castle	39	23	30·8	−12·6	1	0·05	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	44	18	30·3	−11·1	2	0·30	?
	Glasgow	38	15	27·8	−13·2	2	0·09	−0·87
	Ardrossan	43	15	30·5	−10·5	3	0·15	−0·72
	Silloth (Cumberland)	33	8	20·4	−20·8	1	0·17	−0·44
	Douglas (Isle of Man)	47	19	32·3	−10·2	2	0·28	−0·75
7. ENGLAND, N.W.	Stonyhurst	34	13	23·9	−17·7	3	0·28	−0·84
	Manchester	32	17	25·4	−15·6	1	0·32	−0·46
	Liverpool Observatory (Bidston)	39	22	29·2	−12·7	1	0·63	+0·18
	Holyhead	45	28	35·4	− 8·4	3	0·16	−0·61
8. ENGLAND, S.W.	Pembroke	45	26	35·4	− 9·5	4	0·07	−0·80
	Barnstaple	44	21	32·2	−11·7	0	—	−0·86
	Falmouth	44	28	37·7	− 8·3	5	0·47	−0·59
	Plymouth	41	21	32·0	−13·7	3	0·11	−0·69
	Prawle Point	42	21	34·2	−11·3	3	0·20	?
9. IRELAND, N.	Londonderry	41	16	28·5	−13·8	2	0·12	−0·71
	Mullaghmore	47	28	35·6	− 6·5	2	0·08	?
	Brookeborough	38	9	24·1	−18·1	0	—	?
	Armagh	37	18	27·2	−15·6	2	0·02	−0·59
	Donaghadee	42	20	32·2	−10·4	2	0·12	?
10. IRELAND, S.	Dublin	38	22	30·4	−12·6	2	0·08	−0·48
	Kingstown	41	23	32·1	−10·9	2	0·10	−0·51
	Parsonstown	38	10	26·1	−16·8	1	0·05	−0·59
	Roche's Point	44	26	34·7	− 8·8	0	—	−1·23
	Valentia	51	27	39·4	− 4·3	3	0·11	−1·15
	Foynes							
SCOTLAND, N.	Sumburgh Head	45	23	32·0	− 9·2	6	1·37	+0·66
	Stornoway	46	22	31·2	−10·4	4	0·74	−0·45
	Wick	40	15	27·2	−13·4	4	0·39	−0·36
——	Scilly (St. Mary's)	48	33	40·8	− 6·2	4	0·17	−0·72
	Jersey (Noirmont)	45	23	34·0	−12·9	2	0·14	−0·58

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "✠" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending December 8, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, December 2.

Weather fine and bright over nearly the whole of our area, but cloudy at a few stations, with snow at Wisby, Aberdeen, Prawle Point, and Biarritz. Slight snow subsequently in E. and S.W., but weather fine generally.

Temperature fallen in nearly all places—rapidly over central England. Thermometer below 32° on nearly all coasts, and as low as 5° at Nottingham and 16° in London. Maxima as low as 30° to 35° except in the W. and S.W.

Wind easterly over France and our southern districts, very variable elsewhere, light generally. Fresh south-easterly wind appearing in the S.W. later, and spreading eastward.

Sea rough at the mouth of the Humber.

Barometer rising in the S.E., falling in all other places—rather briskly in the W. Small depression forming in the N.E. later, and a second approaching our S.W. coasts. Barometer falling all day.

Wednesday, December 3.

Weather generally fine in the E. and N., cloudy in the W., but thick fog prevailing in London, snow falling at Wick and rain at Biarritz. Slight snow E. and N. later, but weather generally bright.

Temperature risen several degrees on our western coasts, fallen elsewhere. Readings ranging from 39° at Scilly to 15° at York, and to −6° in N.E. France. Maxima again between 30° and 35° generally.

Wind light and variable in the E. and N., fresh or moderate from S.E. to E. in the W. Easterly wind spreading and rising later in day and reaching a hard gale in the S.W.

Sea rough at the mouth of the Humber and at Scilly.

Barometer fallen everywhere. Readings high over the Gulf of Bothnia and northern England, with a small but well marked depression over Holland and a large one over N. Spain. Latter moving northward later and causing steep gradients over France and southern England.

Thursday, December 4.

Weather fine at nearly all our stations but dull over France, with thunder at Brest and snow at Lorient and Paris. Fine all day over the British Isles, but slight snow showers in evening.

Temperature risen a little E., fallen in W. Readings ranging from 34° at Scilly and 33° in the Shetlands, to 11° at Shields. Maxima again between 30° and 35° generally.

Wind very light from W. in the N., moderate from E. in the central districts, and strong to a gale from that quarter in the S. and over the Channel. Easterly gale all day in S.

Sea rough E. and S., high in S.W. and Bay of Biscay.

Barometer falling everywhere; areas of comparatively high pressure N. England and eastern shores of North Sea; deep depression W. France and large shallow depression Norway. Former moving eastward, latter southward, during day.

Friday, December 5.

Weather clear at a few of our south-western stations, cloudy or dull generally, with snow at Dover and Wick, and rain at Valentia. A good deal of snow fell during the day or following night.

Temperature risen briskly, except in the S.E. of England and W. of France; readings ranging from 15° at York, to 41° at Valentia. Temperature rising considerably during day. Maxima between 40° and 50° in the W., but still low in E.

Wind varying considerably; north-westerly to northerly at our southern stations and over France, westerly in Scotland, and southerly to easterly in Scandinavia. Strong in S.W., and fresh in W. during day. Wind veering to N. in N.W.

Sea high Straits of Dover, rough in S.E. and S.W.

Barometer falling N. and E., rising S.W. Readings highest Bay of Biscay, with depressions over Holland and the Shetlands. Pressure increasing generally later, northern depression filling up, southern passing away.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.

Saturday, December 6.

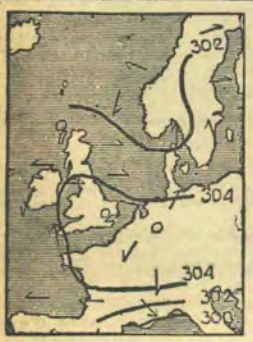
Weather fine and bright generally, but dull in the E. of France and on the eastern shores of the North Sea. A good deal of fog over England, but weather dry all day.

Temperature fallen Scotland and Scandinavia, risen elsewhere. Readings ranging from 47° at Scilly, to 12° at York. Maxima during day varied from 51° at Valentia, to 25° in N. England, while the thermometer in the night fell to zero at Cambridge, York, and Nottingham.

Wind very light and variable on our coasts all day.

Sea rather rough in the N.E. and S.W.

Barometer risen everywhere, quickly on our northern and eastern coasts. Readings uniform generally, but higher off our S.W. coasts and over the Gulf of Bothnia than elsewhere. Anticyclone forming over us later.



Sunday, December 7.

Weather though cloudy at a few stations locally is generally fine and bright over our area; becoming rather more cloudy later, and slight snow falling in extreme N. and S.E.

Temperature risen N., fallen elsewhere—very considerably these Islands and France. Readings exceedingly low central England and N.E. France, minima being −1° at Charleville and zero at York, Nottingham, and Cambridge. Brisk rise during day.

Wind moderate from E. in the S. and from W. in the N., with calms at the central stations. Very light breezes all day.

Sea moderate to calm.

Barometer risen over the whole of western Europe—quickly over these Islands. Area of high pressure N. France and depressions over Norway and Mediterranean. Rising slowly all day.

Monday, December 8.

Weather fine and bright in W. France and over Ireland and Scotland, dull elsewhere, snow falling in London and Paris. Weather fine at most stations afternoon and evening. Slight rain in S.W. and N.

Temperature fallen over Ireland, the W. of France and Denmark, risen rapidly central and eastern England; change at Cambridge amounting to 33°. Readings ranging from 44° at Scilly to 20° at Aberdeen. Maxima between 38° and 48°.

Wind moderate or light, from S.W. over Scotland and Scandinavia, from N. over England, from W. over the Channel, and southerly over N. Germany. No change later.

Sea rought at Cape Gris Nez.

Barometer falling slightly in N. Germany, rising elsewhere. Readings high over the Bay of Biscay and low over N. Scandinavia, with small depression over Holland. Pressure decreasing in N. later, increasing in S.E.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⟫⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

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WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 50.] WEEK ENDING MONDAY, DECEMBER 15, 1879. [*Price 2d.*

[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	52	19	36	4 below.	1	1	4 less.
	2. ENGLAND, NORTH-EAST	49	12	33	6 below.	1	1	6 less.
	3. ENGLAND, EAST	41	11	32	9 below.	3	1	5 less.
	4. MIDLAND COUNTIES	46	15	32	10 below.	2	1	5 less.
	5. ENGLAND, SOUTH	43	18	33	8 below.	2	less than ½	6 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	55	20	38	3 below.	1	less than ½	9 less.
	7. ENGLAND, NORTH-WEST	50	22	36	6 below.	2	2	6 less.
	8. ENGLAND, SOUTH-WEST	48	23	39	6 below.	1	1	8 less.
	9. IRELAND, NORTH	51	19	37	6 below.	2	1	?
	10. IRELAND, SOUTH	52	20	40	3 below.	1	less than ½	9 less.

General Remarks.

Weather much more cloudy than during the last few weeks, and, excepting on the 11th, generally dull and gloomy, with dense fog in the S.E. of England.

Temperature higher than during last week, but still low for the time of year. In "Ireland, S.," and over Scotland the deficit was only from 2° to 3°, but in other districts as much as 6° to 10°. The lowest of the minimum readings occurred on the 11th, after which the frost broke up and temperature rose considerably, the highest of the maximum readings being recorded on the 14th or 15th.

Wind generally moderate from S.E. and S. in the S.W. of England and over Ireland, light from W. in Scotland on most days, but rather strong from S.W. on the 14th and 15th. Calms and variable airs were experienced over the greater part of England until the 13th, when a light westerly breeze set in and continued during the remainder of the period.

Rainfall exceedingly slight all over the kingdom, and in "England, S.," "Scotland, W.," and "Ireland, S.," the amounts measured were less than half a tenth.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	52	26	39·4	− 0·8	1	0·10	−0·35
	Aberdeen	50	20	33·3	− 6·3	1	0·08	−0·61
	Glenalmond	47	19	35·9	− 3·7	1	0·06	−0·44
	Leith	50	23	36·1	− 3·3	1	0·03	−0·36
2. ENGLAND, N.E.	Shields	48	25	35·6	− 3·9	1	0·10	−0·59
	Durham	49	22	34·4	− 5·6	1	0·07	−0·70
	York	42	12	30·8	− 9·3	1	0·07	−0·54
	Spurn Head	41	27	34·9	− 4·8	1	0·05	?
	Kelstern (Lincolnshire) ℳ	42	16	31·3	− 8·6	2	0·02	−0·59
3. ENGLAND, E.	Yarmouth	38	24	31·7	−10·1	3	0·08	−0·69
	Cambridge	41	11	30·8	− 9·6	1	0·04	−0·44
	Audley End (Saffron Walden) ℳ							
	Rothamsted	41	15	32·9	− 8·2	4	0·13	−0·41
4. MIDLAND COUNTIES	Nottingham	43	19	30·9	− 9·7	2	0·13	−0·43
	Loughborough	44	15	30·2	−10·6	1	0·10	−0·45
	Leicester	43	16	32·0	− 8·9	2	0·09	−0·43
	Shrewsbury ℳ	45	24	35·0	− 7·0	1	0·01	−0·46
	Hereford ℳ	45	21	33·7	− 8·4	2	0·04	−0·64
	Cirencester	44	17	30·0	−11·9	1	0·16	−0·54
	Oxford	46	19	31·3	−10·7	3	0·06	−0·36
5. ENGLAND, S.	London	43	19	32·8	− 8·4	0	—	−0·47
	Marlborough ℳ	42	17	32·7	− 8·8	2	0·04	−0·67
	Strathfield Turgiss ℳ	41	13	30·6	−11·1	2	0·02	−0·48
	Dover	43	27	35·0	− 5·9	4	0·11	−0·70
	Hastings	43	29	35·8	− 5·7	0	—	−0·62
	Hurst Castle	41	25	33·6	− 9·4	3	0·06	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	55	29	40·2	− 0·9	2	0·06	?
	Glasgow	47	23	36·2	− 4·5	1	0·02	−1·00
	Ardrossan	48	28	39·0	− 2·0	1	0·01	−0·87
	Silloth (Cumberland)	48	20	34·2	− 6·4	0	—	−0·67
	Douglas (Isle of Man)	39	28	39·5	− 2·9	1	0·05	−1·00
7. ENGLAND, N.W.	Stonyhurst	42	22	32·8	− 8·8	4	0·36	−0·76
	Manchester	41	25	32·8	− 1·3	0	—	−0·78
	Liverpool Observatory (Bidston)	46	27	36·8	− 5·2	1	0·03	−0·40
	Holyhead	50	34	42·8	− 0·9	2	0·24	−0·63
8. ENGLAND, S.W.	Pembroke	48	33	42·3	− 2·0	2	0·31	−0·60
	Barnstaple	42	23	33·5	−10·1	1	0·14	−0·81
	Falmouth	46	36	41·7	− 4·3	1	0·01	−0·96
	Plymouth	45	27	35·7	− 9·9	1	0·01	−0·69
	Prawle Point	46	32	39·5	− 5·9	0	—	?
9. IRELAND, N.	Londonderry	48	23	35·5	− 6·5	2	0·10	−0·75
	Mullaghmore	51	32	42·4	+ 0·4	1	0·07	?
	Brookeborough	47	20	35·0	− 7·1	0	—	?
	Armagh	45	19	33·7	− 9·0	3	0·06	−0·56
	Donaghadee	48	26	37·2	− 5·1	2	0·04	?
10. IRELAND, S.	Dublin	49	25	38·0	− 5·0	1	0·04	−0·51
	Kingstown	51	26	40·6	− 2·3	2	0·06	−0·57
	Parsonstown	48	21	36·2	− 6·5	2	0·03	−0·66
	Roche's Point	50	31	43·2	− 0·6	0	—	−1·13
	Valentia	52	34	45·8	+ 2·2	0	—	−1·36
	Foynes	48	20	35·1	− 7·8	2	0·05	?
SCOTLAND, N.	Sumburgh Head	51	32	42·7	+ 1·5	6	0·35	−0·38
	Stornoway	52	29	40·8	− 0·8	2	0·17	−1·14
	Wick	54	21	38·5	− 1·9	3	0·08	−0·63
——	Scilly (St. Mary's)	48	39	44·4	− 2·3	1	0·01	−0·89
	Jersey (Noirmont)	44	28	35·4	− 0·4	1	0·01	−0·73

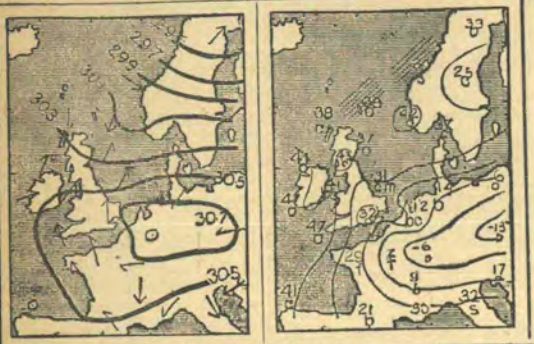
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending December 15, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, December 9.

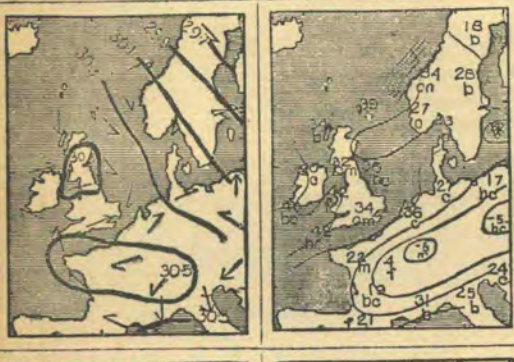
Weather fine at our south-eastern and southern stations, as well as at Nottingham, Holyhead, and Donaghadee, cloudy or dull elsewhere, with mist or fog in several places. Becoming more generally cloudy later, with slight rain in most places.

Temperature risen fast in W. and N., and over Scandinavia, fallen quickly in S.E. and over France. Readings ranging from 47° at Valentia, to 21° at York, and minus 6° at Charleville. Sharp frost had been experienced over Great Britain early, but thermometer rose during day except in W.

Wind easterly to southerly over France, southerly to westerly over the British Isles, the North Sea, Norway and Sweden. Moderate or light, except to the eastward of the North Sea. Northerly breezes appearing in Scotland later.

Sea moderate to smooth, except off the Shetlands and Christiansund.

Barometer rising briskly in the S.E., falling elsewhere, quickly in Sweden; large area of high pressure (30·7 ins.) in S.E., and depression (29·4 in.) over Lapland. Slight recovery in N. later, but mercury falling elsewhere.



Wednesday, December 10.

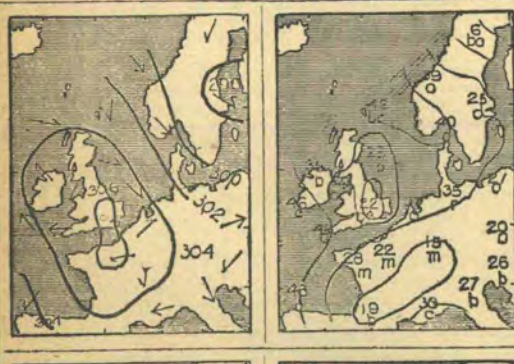
Weather varying considerably, clear in parts of Scotland, the N. of England, and our S.W. coasts, but generally cloudy and misty. Fine in most places during day, but slight snow occurring at a few stations.

Temperature risen briskly England, and rapidly Netherlands, fallen over France and our N. and W. coasts. Readings ranging from 43° at Pembroke, to 27° at Aberdeen, and minus 5° at Charleville. Thermometer rising all day, but frost again at night.

Wind moderate to fresh from E. over France, and from W. over Scandinavia, with light variable breezes on our coasts. A fresh southerly breeze prevailing in the S.W. later.

Sea rough at Christiansund.

Barometer risen over Norway and our northern coasts, fallen elsewhere; readings high and uniform over these Islands and France, comparatively low over Lapland. Little change later.



Thursday, December 11.

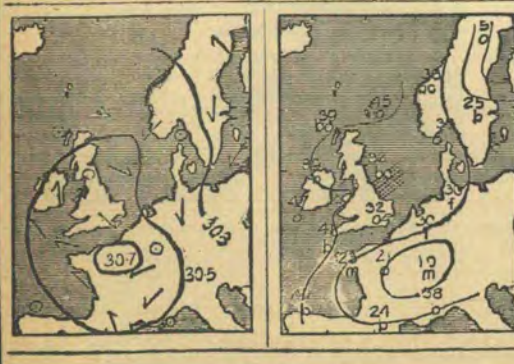
Weather foggy at our central stations and dull in S. and over France, fine in most other places. Fine all day and scarcely any rain falling.

Temperature fallen considerably over central England, risen elsewhere. Minima 11° at Cambridge, 14° at York, and 19° at Oxford and in London. Readings ranging from 46° at Valentia to 17° at York, but thermometer rising briskly during day.

Wind easterly to southerly in the S. and W., and westerly to north-westerly in the W. and N.; blowing strongly over Scandinavia and Denmark. No change during day.

Sea rough Christiansund.

Barometer risen slightly over England and the N. of France, fallen elsewhere. Readings still high and uniform over the western part of our area and low over the Baltic. Scarcely any change later.



Friday, December 12.

Weather fine or moderately so at the majority of our stations, but dull and foggy in the S.E. Cloudy or foggy during the day except in the N.E., and slight rain falling in the N. and S.E.

Temperature risen over Great Britain, fallen elsewhere; readings ranging from 47° at Valentia and 45° in the Shetlands to 21° at York. Slight frost still prevailing in a few places, but the thermometer rising everywhere during day.

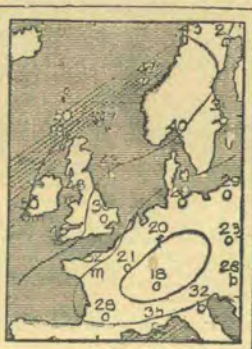
Wind easterly over France, south-easterly on our S.W. coasts, westerly in Scotland, and north-westerly over the North Sea. Light or moderate in force. Fresh south-westerly breeze appearing in N.W. at night.

Sea nearly smooth except at the mouth of the Humber.

Barometer risen generally—briskly in Scandinavia. Readings highest (30·7 ins.) over N. France, lowest (30·1 ins.) over the Gulf of Bothnia. Brisk fall of barometer with W.S.W. gale at Bodö in evening.

(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.		**Weather** during the 24 hours succeeding the date of the Charts.
Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	
		Saturday, December 13. *Weather* cloudy or dull except in N. Germany and at a few of our stations, with a good deal of fog and mist. Dense fog in London. Weather cloudy or misty except in the N.E., but with no rain. *Temperature* fallen fast N. Germany, risen elsewhere—quickly Norway and Sweden. Frost nearly disappeared, readings ranging from 47° at Valentia to 28° at Aberdeen. Thermometer rising all day except in the S.E. *Wind* southerly to westerly, and fresh or moderate in force, on our western and northern coasts, and strong to a gale from W. over Norway, with light variable breezes at our south-eastern stations, and easterly winds in France. Strong south-westerly winds in Scotland at night. *Sea* rough to the northward of Scotland and off the W. of Norway. *Barometer* risen slowly in S.W. and briskly over N. Germany, fallen elsewhere. Area of high readings over England and the N. of France, with a large depression over the N. of Norway. Pressure giving way all day.
		**Sunday, December 14.** *Weather* though locally fine in a few places generally dull or cloudy with much fog and mist. Rain falling in Hebrides. Weather dull all day but slight rain in a few places. *Temperature* fallen considerably over France, risen elsewhere, and readings ranging from 50° in the Hebrides to 32° at Yarmouth and 20° at Brussels. Thermometer rising during day and frost disappearing. *Wind* easterly over France and south-westerly to westerly over these Islands and Scandinavia. Very light in force in the S., but fresh to strong in the W. and N. Little change during day. *Sea* rough on our N.W. and N. coasts. *Barometer* falling everywhere, briskly in the N. Readings highest over France and the Channel, with deep depression in N. Norway. Disturbance moving eastward later and very slight recovery commencing in N.
		Monday, December 15. *Weather* fine at a few French stations and at Aberdeen, dull, misty, or foggy elsewhere. Gloomy and dull in most places all day, and slight rain fell in the S.W. and S.E. *Temperature* risen except in S. France. Readings ranging over these Islands from 49° at Valentia and 50° at Stornoway, to 37° at Cambridge. Maxima between 40° and 50°, but slight frost in E. at night. *Wind* still easterly over France and westerly to south-westerly elsewhere; light or moderate generally, but fresh or strong in the N. and over Scandinavia. Increasing in force in the W. and N. later. *Sea* rough N. *Barometer* rising N., falling S., but changes slight generally, Distribution scarcely changed, pressure high over France and Channel, with large depression in N. Norway. Changes continuing during day.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⋙⟶ = a heavy gale; ⟶ = a gale; ⟶ = a fresh to strong breeze; ⟶ = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
116, Victoria Street, S.W.

LONDON: Printed by George E. Eyre and William Spottiswoode,
Printers to the Queen's most Excellent Majesty.
For Her Majesty's Stationery Office.
[48.—150.—12/79.]

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

VOL. II. No. 51.] WEEK ENDING MONDAY, DECEMBER 22, 1879. [*Price 2d.*
[*Annual subscription, post paid, 12s. 6d.*

I.—SUMMARY OF TEMPERATURE AND RAINFALL IN THE UNITED KINGDOM FOR AGRICULTURAL AND SANITARY PURPOSES.

Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	53	22	37	2 below.	2	1	5 less.
	2. ENGLAND, NORTH-EAST	48	24	35	4 below.	1	less than ½	6 less.
	3. ENGLAND, EAST	44	20	32	9 below.	2	less than ½	6 less.
	4. MIDLAND COUNTIES	47	20	34	8 below.	1	less than ½	6 less.
	5. ENGLAND, SOUTH	53	18	33	9 below.	1	1	5 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	56	25	39	2 below.	2	3	8 less.
	7. ENGLAND, NORTH-WEST	48	27	36	5 below.	1	1	8 less.
	8. ENGLAND, SOUTH-WEST	52	23	39	6 below.	1	2	7 less.
	9. IRELAND, NORTH	52	25	39	3 below.	2	1	?
	10. IRELAND, SOUTH	53	22	41	2 below.	3	2	9 less.

General Remarks.

Weather cloudy, dull, and foggy over England generally, fair in Ireland and Scotland. The fog over the S.E. of England was very dense at times, especially in London on the 22nd.

Temperature rather higher than that of last week, but still considerably below the mean for the time of year; as much as 8° or 9° over the greater part of England, but only from 2° to 3° in Ireland and Scotland. The lowest of the minima occurred at most stations on the 17th, and the highest of the maxima at the close of the period.

Wind anticyclonic until the 20th, being generally moderate from E. or S.E. in the S.E. and S., moderate to fresh from S. or S.W. in the W., and moderate from S.W. or W. in the N. and N.E.; on the 21st and 22nd, however, a fresh to strong south-westerly gale was experienced in the northern and north-western districts, and south-westerly breezes in all other places.

Rainfall again exceedingly slight all over the country, less than half a tenth in "England, N.E." and "E." and the "Midland Counties."

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	53	25	38·7	− 1·3	3	0·10	−0·35
	Aberdeen	50	26	37·6	− 1·6	2	0·03	−0·64
	Glenalmond	45	22	34·9	− 4·3	2	0·13	?
	Leith	51	27	37·2	− 2·2	2	0·03	−0·36
2. ENGLAND, N.E.	Shields	48	28	37·0	− 2·1	0	—	−0·62
	Durham	43	27	35·1	− 4·1	0	—	−0·75
	York	47	29	35·7	− 3·9	3	0·04	−0·57
	Spurn Head	43	26	36·8	− 2·9	1	0·01	?
	Kelstern (Lincolnshire) ℳ	40	24	32·6	− 6·6	2	0·07	−0·37
3. ENGLAND, E.	Yarmouth	39	22	32·6	− 7·6	1	0·02	−0·74
	Cambridge	44	22	31·7	− 7·5	1	0·03	−0·42
	Audley End (Saffron Walden) ℳ							
	Rothamsted	41	20	30·2	−10·3	5	0·06	−0·52
4. MIDLAND COUNTIES	Nottingham	43	29	35·2	− 5·1	0	—	−0·60
	Loughborough	46	28	34·5	− 5·9	0	—	−0·58
	Leicester	44	26	33·4	− 7·0	1	0·01	−0·54
	Shrewsbury ℳ	43	21	32·5	− 8·8	0	—	−0·45
	Hereford ℳ	47	22	33·8	− 7·9	1	0·03	−0·64
	Cirencester	45	20	32·2	− 9·2	2	0·06	−0·69
	Oxford	46	23	32·7	− 8·5	2	0·08	−0·42
5. ENGLAND, S.	London	44	22	32·6	− 8·2	0	—	−0·50
	Marlborough ℳ	48	23	32·4	− 8·7	1	0·09	−0·66
	Strathfield Turgiss ℳ	41	19	29·8	−11·6	1	0·19	−0·35
	Dover	41	18	32·2	− 8·5	0	—	−0·80
	Hastings	43	18	32·4	− 8·9	1	0·04	−0·61
	Hurst Castle	53	22	35·4	− 7·3	2	0·04	?
6. SCOTLAND, W.	Laudale (Loch Sunart)	56	30	42·7	+ 1·5	3	0·73	?
	Glasgow	47	31	38·8	− 1·3	2	0·07	−1·00
	Ardrossan	49	30	39·6	− 1·5	2	0·13	−0·79
	Silloth (Cumberland)	50	25	36·3	− 4·8	2	0·17	−0·53
	Douglas (Isle of Man)	49	29	39·0	− 3·2	2	0·23	−0·84
7. ENGLAND, N.W.	Stonyhurst	41	29	35·1	− 5·2	1	0·02	−1·09
	Manchester	44	27	34·4	− 6·4	0	—	−0·76
	Liverpool Observatory (Bidston)	45	28	35·8	− 5·9	1	0·02	−0·42
	Holyhead	48	31	40·0	− 3·1	1	0·16	−0·76
8. ENGLAND, S.W.	Pembroke	49	32	39·5	− 4·4	1	0·56	−0·37
	Barnstaple	47	23	34·9	− 8·3	1	0·03	−0·94
	Falmouth	51	34	41·9	− 4·1	1	0·15	−0·80
	Plymouth	49	26	37·0	− 8·3	1	0·16	−0·69
	Prawle Point	52	30	40·3	− 4·9	1	0·08	?
9. IRELAND, N.	Londonderry	49	25	38·4	− 3·6	2	0·07	−0·80
	Mullaghmore	52	33	41·9	+ 0·1	2	0·27	?
	Brookeborough	47	25	36·8	− 5·1	2	0·15	?
	Armagh	47	25	38·0	− 4·5	2	0·05	−0·60
	Donaghadee	50	29	40·7	− 1·3	1	0·10	?
10. IRELAND, S.	Dublin	49	28	38·0	− 4·6	1	0·05	−0·49
	Kingstown	53	30	40·5	− 2·2	5	0·10	−0·57
	Parsonstown	50	22	38·2	− 4·0	3	0·09	−0·64
	Roche's Point	50	35	44·0	+ 0·5	3	0·51	−0·76
	Valentia	52	32	45·5	+ 2·1	3	0·45	−1·00
	Foynes	53	25	39·5	− 3·4	2	0·04	?
SCOTLAND, N.	Sumburgh Head	51	37	42·6	+ 1·6	3	0·07	−0·68
	Stornoway	53	35	42·3	+ 1·9	3	0·45	−0·45
	Wick	53	29	39·7	− 0·5	0	—	−0·70
——	Scilly (St. Mary's)	53	36	44·7	− 1·8	3	0·22	−0·72
	Jersey (Noirmont)	48	29	36·4	− 9·1	0	—	−0·75

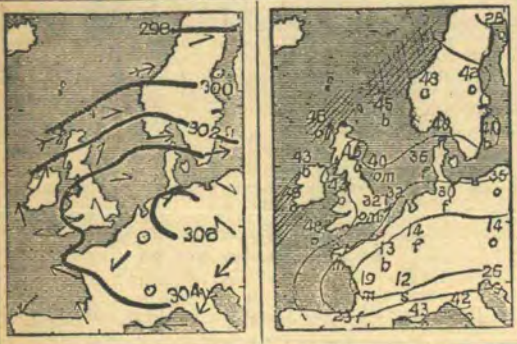
The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE
during the Week ending December 22, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Tuesday, December 16.

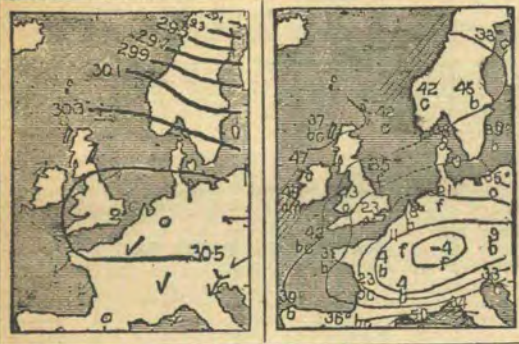
Weather fine at some north-western and northern stations, as well as in many parts of France and N. Germany, cloudy elsewhere, with fog very generally. Weather becoming dull in W., but remaining fair though foggy in E.

Temperature lower, except in Sweden—several degrees over N. France. Readings ranging from 48° at Valentia and 46° at Stornoway to 31° at Dover and 13° in Paris. Falling in S.E. later and hard frost at night.

Wind easterly over France and Channel, southerly over Ireland and England, and south-westerly over Scotland and Scandinavia. Light to moderate generally, but blowing a gale at Stornoway and Christiansund. Southerly to south-westerly winds later.

Sea rough at Valentia and Stornoway, high at Christiansund.

Barometer rising over the eastern shores of the North Sea, the E. of England, and N.E. of France, falling slowly elsewhere. Falling slowly all day.



Wednesday, December 17.

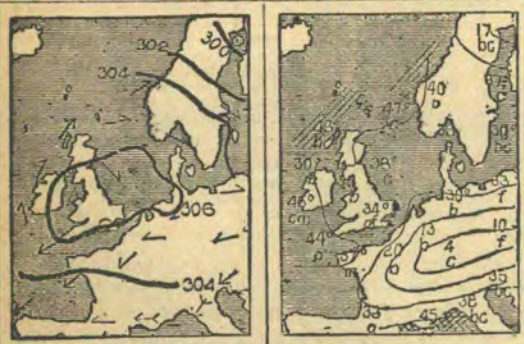
Weather still fine over greater part of France and N. Germany, but cloudy and foggy generally. Slight improvement in W. later, and scarcely any rain falling within our Islands.

Temperature rather higher N. Ireland, Sweden, and S. France, lower elsewhere. Readings ranging from 48° at Valentia to 23° in S.E. of England, and 4° in Paris. Rising during day, and frost breaking.

Wind easterly over France and Channel, westerly to south-westerly elsewhere; light in force, except at Valentia and over Scandinavia. Little change during day,

Sea rough at Valentia and Christiansund.

Barometer falling Sweden, and large depression over Lapland, but rising elsewhere. Large anticyclone lying over these Islands and France. Scarcely any change later.



Thursday, December 18.

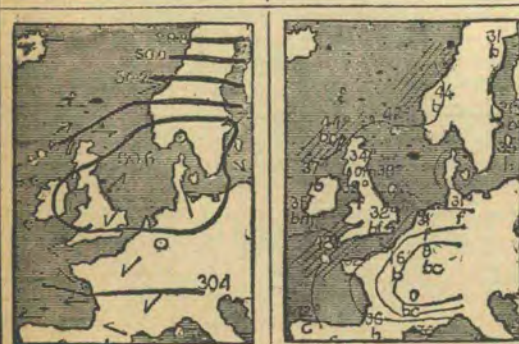
Weather dull or foggy over England, the W. of France, and W. of Norway, fine though rather misty elsewhere. Weather fine generally all day, but rain and snow in S.W. France.

Temperature much higher eastern and central England, N. Germany, and N.E. France, lower in most other places. = Rising, except in S.W., during day, and scarcely any frost reported at night.

Wind easterly over France and Channel, southerly to south-westerly on most of our other coasts, and westerly over Scandinavia. Blowing strongly over France all day.

Sea rough at Stornoway and Christiansund.

Barometer rising slightly over these Islands, and quickly over Scandinavia, falling slowly over France. Anticyclone still shown over us. Hardly any change during day beyond continued rise in Sweden.



Friday, December 19.

Weather dull central and eastern England and eastern Ireland, fine in most other places, though with mist or fog at several stations. Slight rain in the E. in the evening.

Temperature fallen France and Scandinavia, changed irregularly elsewhere. Readings ranging from 43° at Scilly and 44° at Stornoway to 32° in London. Hard frost central France. Very slight frost over British Isles at night.

Wind moderate to fresh from E. over France and the Channel, light and variable over central England, and south-westerly in the N. and over Scandinavia. South-westerly wind increasing to a gale in Norway later, but little other change.

Sea rough in the S.W., as well as at Stornoway and Christiansund.

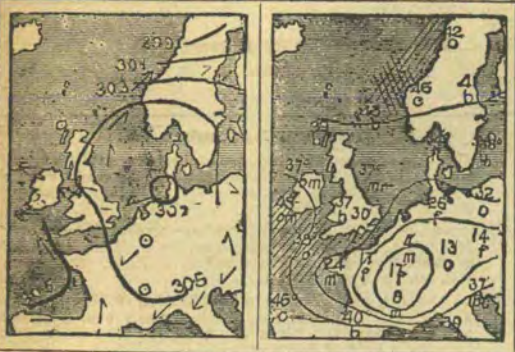
Barometer falling a little over Scandinavia, rising slowly elsewhere. Large anticyclone (30·6 in.) lying over these Islands, the North Sea, and Denmark. Large depression appearing in N. Norway later, but little other change.

(*Continued over.*)

(Continued.)

Synoptic Weather Charts.—8 a.m.

Barometer and Wind.	Cloud, Rain, Sea, and Temperature.	**Weather** during the 24 hours succeeding the date of the Charts.



Saturday, December 20.

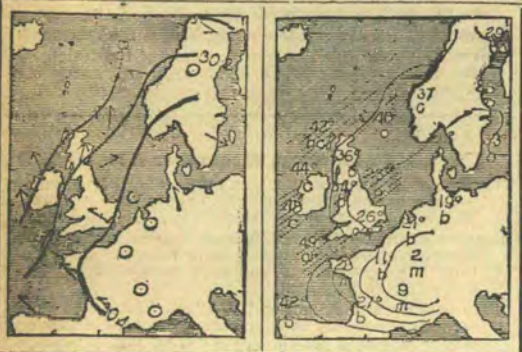
Weather very foggy over N. Germany and N.E. France, but fine over the greater part of the Continent; cloudy or dull over these Islands except at a few north-western stations. Dull generally all day.

Temperature risen Valentia, as well as in many parts of France and Scandinavia, fallen elsewhere. Ranging from 48° at Valentia to 25° at Nairn. Sharp frost France and over England at night.

Wind still easterly over France, but southerly (S.W.—S.E.) over these Islands, blowing strongly in the S.W. and S. No change during day.

Sea rough in the S.W. and S.

Barometer falling at all but the French and Swedish stations —briskly on our S.W. coasts. Anticyclone over North Sea, with depressions off our S.W. coasts and over Norway. Pressure giving way all day.



Sunday, December 21.

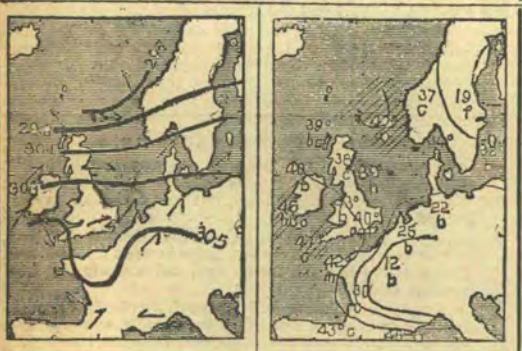
Weather fine over France, the Netherlands, N. Germany, and Denmark, dull at nearly all our stations. Much mist in the S. and S.E. Cloudy all day except in N.E. England, fog in S.E.

Temperature risen several degrees in the W., fallen elsewhere; readings ranging from 48° at Valentia, to 26° in London and 9° at Lyons. Temperature rising all day and following night.

Wind easterly to south-easterly over France, the Channel, and parts of southern England, southerly on most of our other coasts; fresh or strong in the S.W. and W. Wind south-westerly generally later, and blowing a gale at Stornoway.

Sea rough in the S.W., N., and at the mouth of the Humber.

Barometer falling everywhere—briskly in the S.W., quickly in the N. Anticyclone lying over Baltic and central Europe, with large area of low pressure over Atlantic. Depression off Hebrides in evening and slight recovery in S.W.



Monday, December 22.

Weather dull and foggy over south-eastern England and in Norway, fine in nearly all other districts. Rain and unsettled weather commencing in the W. later, and an exceedingly dense fog occurring in London.

Temperature fallen slowly over Ireland and quickly in Sweden, risen elsewhere, considerably over England. Readings ranging from 47° at Scilly, to 36° at Aberdeen and Yarmouth. Rising except in S.E. later, and maxima high in N.

Wind westerly to south-westerly generally, but drawing into N.W. over the western half of the Channel; moderate in force in most places, but blowing a gale at Skudesnaes and in the Shetlands. Strong or fresh south-westerly gale in N.W. and N. at night.

Sea rough in the S.W. and N.

Barometer rising except in Scandinavia. Readings high and uniform over France, and low to the northward of Scotland. Pressure increasing briskly all day over England and slightly generally.

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(Signed) ROBERT H. SCOTT,
Secretary.

Meteorological Office,
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[48.—150.—12/79.]

(OFFICIAL COPY.)

WEEKLY WEATHER REPORT.

ISSUED BY THE METEOROLOGICAL OFFICE, LONDON.

PUBLISHED BY J. D. POTTER, 31 POULTRY, AND 11 KING STREET, TOWER HILL; AND E. STANFORD, CHARING CROSS.

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Explanation of the Map.—The United Kingdom has been divided into Meteorological districts, ten of which are included in the following Summary. They are separately numbered and shaded on the Map, and are similarly numbered in the letterpress, where they are also named.

The black dots show the positions of the Stations furnishing the reports on which the Summary is based. The names of the Stations are given in the following list under those of the districts to which they severally belong.

1. SCOTLAND, E.—Nairn, Aberdeen, Glenalmond, Leith.
2. ENGLAND, N.E.—Shields, Durham, York, Spurn Head, Kelstern (Lincolnshire).
3. ENGLAND, E.—Yarmouth, Cambridge, Audley End (Saffron Walden), Rothamsted.
4. MIDLAND COUNTIES.—Nottingham, Loughborough, Leicester, Shrewsbury, Hereford, Cirencester, Oxford.
5. ENGLAND, S.—London, Marlborough, Strathfield Turgiss, Dover, Hastings, Hurst Castle.
6. SCOTLAND, W.—Laudale (Loch Sunart), Glasgow, Ardrossan, Silloth (Cumberland), Douglas (Isle of Man).
7. ENGLAND, N.W.—Stonyhurst, Manchester, Liverpool Observatory (Bidston), Holyhead.
8. ENGLAND, S.W.—Pembroke, Barnstaple, Falmouth, Plymouth, Prawle Point.
9. IRELAND, N.—Londonderry, Mullaghmore, Brookeborough, Armagh, Donaghadee.
10. IRELAND, S.—Dublin, Kingstown, Parsonstown, Roche's Point, Valentia, Foynes.

Explanation of Summary.—The data for mean *Temperature* in the corresponding week of previous years are derived from the 13 years observations 1857-69, as determined by Mr. Buchan. Those for mean *Rainfall* have been obtained from the 10 years observations 1866-75. A rainy day is one on which at least a hundredth of an inch has fallen.

	Districts.	Temperature. (In degrees Fahrenheit.) Highest observed.	Lowest observed.	Average for the Week.	Above or below the Mean for Week.	Rainfall. (Amounts in tenths of an inch.) Number of Rainy Days.	Rainfall for the Week.	More or less than the Mean for Week.
Principal Wheat-producing Districts.	1. SCOTLAND, EAST	57	29	41	2 above.	5	10	0 (average).
	2. ENGLAND, NORTH-EAST	56	21	38	1 below.	3	1	4 less.
	3. ENGLAND, EAST	54	22	34	5 below.	2	1	5 less.
	4. MIDLAND COUNTIES	57	22	36	4 below.	3	2	4 less.
	5. ENGLAND, SOUTH	53	20	37	4 below.	3	3	4 less.
Principal Grazing, &c. Districts.	6. SCOTLAND, WEST	53	22	43	3 above.	5	12	2 more.
	7. ENGLAND, NORTH-WEST	56	27	40	1 below.	4	8	1 less.
	8. ENGLAND, SOUTH-WEST	56	26	44	0 (average).	4	6	3 less.
	9. IRELAND, NORTH	56	25	43	2 above.	5	10	?
	10. IRELAND, SOUTH	59	28	46	3 above.	6	12	2 more.

General Remarks.

Weather moderately fine and dry generally until the 26th, after which date it became dull, squally, and very unsettled over the whole country. Fog, however, was experienced during the first three days in the S.E., and was very dense all over that district on Christmas Day.

Temperature readings in Ireland and Scotland have been high during the whole period. In England, however, a very decided change has occurred, low readings having been reported until the 27th, when a very rapid rise occurred, and the thermometer continued high till the close of the week.

Wind generally south-westerly over the whole country; fresh to strong in force in the W. and N. on the first few days, and moderate or light in the S. and E. On the 28th a very severe gale prevailed in nearly all parts of the kingdom, and on our N.W. and N.E. coasts blew with great violence in the evening.

Rainfall more than the average in Ireland and over the greater part of Scotland, but again less in all other districts.

The data from which the summary on the preceding page has been calculated are as follow :

Districts.	Names of Stations.	Temperature.				Rainfall.		
		Highest observed.	Lowest observed.	Average for the Week.	Difference from the Mean.	No. of Days with Rain.	Total fall in the Week.	Difference from the Mean.
		°	°	°	°		Inches.	Inches.
1. SCOTLAND, E.	Nairn	53	34	41·1	+ 1·5	5	0·59	+0·10
	Aberdeen	54	32	41·4	+ 2·5	3	0·41	−0·24
	Glenalmond	50	29	39·5	+ 0·5	6	2·37	?
	Leith	57	32	43·2	+ 4·0	4	0·67	+0·20
2. ENGLAND, N.E.	Shields	56	28	40·9	+ 1·9	3	0·04	−0·56
	Durham	53	26	38·3	− 0·4	2	0·15	−0·53
	York	55	21	37·6	− 1·4	3	0·19	−0·40
	Spurn Head	52	25	36·1	− 2·6	3	0·08	?
	Kelstern (Lincolnshire) ℳ	53	24	34·4	− 4·4	2	0·22	−0·18
3. ENGLAND, E.	Yarmouth	51	25	34·8	− 4·2	1	0·03	−0·69
	Cambridge	54	23	34·7	− 4·1	2	0·06	−0·34
	Audley End (Saffron Walden) ℳ							
	Rothamsted	52	22	32·9	− 6·8	4	0·20	−0·31
4. MIDLAND COUNTIES	Nottingham	56	24	35·7	− 3·8	2	0·15	−0·51
	Loughborough	55	22	36·5	− 3·4	2	0·15	−0·40
	Leicester							
	Shrewsbury ℳ							
	Hereford ℳ	57	25	38·0	− 3·2	3	0·28	−0·44
	Cirencester	52	24	35·5	− 5·2	3	0·34	−0·43
	Oxford	53	23	36·1	− 4·2	5	0·18	−0·37
5. ENGLAND, S.	London	53	23	35·6	− 5·1	2	0·11	−0·45
	Marlborough ℳ	53	24	37·4	− 3·3	4	0·28	−0·52
	Strathfield Turgiss ℳ	52	20	35·6	− 5·6	2	0·25	−0·33
	Dover	46	26	35·9	− 4·4	3	0·31	−0·49
	Hastings	47	27	36·7	− 4·2	4	0·33	−0·36
	Hurst Castle	48	27	38·5	− 3·7	3	0·24	?
6. SCOTLAND, W.	Laudale (Loch Sunart)							
	Glasgow	53	35	43·1	+ 3·6	5	1·53	+0·41
	Ardrossan	53	36	43·6	+ 3·0	6	1·19	+0·19
	Silloth (Cumberland)	51	22	41·3	+ 1·7	4	1·61	+0·86
	Douglas (Isle of Man)	53	32	44·6	+ 2·7	3	0·60	−0·53
7. ENGLAND, N.W.	Stonyhurst	53	28	38·4	− 2·3	4	0·91	−0·18
	Manchester	54	27	38·2	− 1·9	3	0·84	+0·05
	Liverpool Observatory (Bidston)	56	29	40·1	− 0·9	3	0·21	−0·26
	Holyhead	53	37	44·9	+ 2·4	6	1·08	+0·14
8. ENGLAND, S.W.	Pembroke	51	33	44·6	+ 1·5	4	0·51	−0·49
	Barnstaple	56	26	42·4	− 0·4	6	0·64	−0·38
	Falmouth	53	37	46·1	+ 0·6	3	1·06	+0·07
	Plymouth	53	27	42·2	− 2·7	5	0·43	−0·52
	Prawle Point	54	34	44·0	− 1·0	3	0·25	?
9. IRELAND, N.	Londonderry	54	32	43·4	+ 2·2	6	1·10	+0·20
	Mullaghmore	54	31	44·2	+ 2·7	5	1·40	?
	Brookeborough	56	25	42·7	+ 1·4	4	1·20	?
	Armagh	54	33	42·9	+ 0·8	5	0·97	+0·28
	Donaghadee	54	33	42·6	+ 1·1	5	0·55	?
10. IRELAND, S.	Dublin	57	32	45·2	+ 3·0	4	0·39	−0·16
	Kingstown	59	34	45·9	+ 3·7	7	0·51	−0·19
	Parsonstown	57	28	43·9	+ 2·3	5	0·93	+0·17
	Roche's Point	53	33	45·3	+ 2·3	5	2·17	+0·83
	Valentia	56	37	47·8	+ 4·6	6	2·06	+0·56
	Foynes	57	32	45·5	+ 3·5	5	1·30	?
SCOTLAND, N.	Sumburgh Head	51	37	41·8	+ 1·4	4	1·99	+1·26
	Stornoway	51	35	42·0	+ 1·3	6	2·45	+1·09
	Wick	53	33	40·7	+ 0·8	5	0·69	+0·01
——	Scilly (St. Mary's)	53	43	48·2	+ 2·2	4	0·37	−0·63
	Jersey (Noirmont)	49	30	38·7	+ 3·7	3	0·33	−0·45

The observations made in "Scotland N." and the "Channel Islands" are not included in the Summary on page 1.
The stations marked with "ℳ" are in connection with the Meteorological Society.

II.—SUMMARY OF WEATHER IN WESTERN EUROPE during the Week ending December 29, 1879.

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.

Tuesday, December 23.

Weather dull in the W. and N. of Scotland, and over Norway, moderately fine in most other places, but very foggy in the S.E. and over N. Germany. Dull generally all day, and very foggy again in S.E. at night.

Temperature considerably higher over Scandinavia and the more northern parts of the Kingdom, but several degrees lower in the S. and over France, ranging from 51° at Valentia and Sumburgh Head, to 27° at Cambridge and 9° at Lyons. Rather cold in S.E. at night.

Wind easterly over France and the Channel, southerly to south-westerly on our other coasts, and over Norway and Sweden. Moderate in force in most places, but strong in the N.W. and over Scandinavia.

Sea rough to high in the W. and N.

Barometer falling over Scandinavia and Denmark, rising elsewhere. Large area of very high pressure (30·8 ins.) over S.E. England and northern and central France, with depression over Lapland. Pressure giving way all day.

Wednesday, December 24.

Weather moderately fine over the greater part of N. Germany, France, and England; cloudy or dull in most other places. Very fine day at nearly all stations.

Temperature risen slightly at a few central and south-western stations, fallen generally; ranging from 44° at Valentia and 43° in the Shetlands to 23° in London. Rising all day and mild evening.

Wind still easterly over France and Channel, south-westerly to westerly on our coasts and eastern shores of North Sea. Moderate to strong generally, but blowing gale at Fanö and Christiansund. Wind westerly all day, with gale in the Shetlands.

Sea high to rough in S.W., W., and N.

Barometer falling briskly in most places, but slight recovery commencing at Valentia. Readings highest central France, deep depression over N. Norway. General but slight rise during day.

Thursday, December 25.

Weather fine over greater part of France, our western and northern coasts, Denmark, and Sweden, but dense fog over central and south-eastern England, the Netherlands, and N. Germany. Dense fog continuing all day in S.E.

Temperature risen eastern shores of North Sea and northern and eastern France, fallen elsewhere; readings ranging from 48° at Scilly to 26° at Cambridge. Very little change over England during day.

Wind easterly over France, south-easterly over Ireland, and westerly on our northern coasts and over the North Sea. Light or moderate generally, but blowing a gale in Norway and the Skager Rack. Wind veering southward and rising in the W. later.

Sea rough to high on the Norwegian and N. Spanish coasts, rough at some of our western ports.

Barometer fallen over the S.W. of France and the Baltic, risen elsewhere. Pressure high and uniform these Islands, with large depression over Norway. Barometer falling in W. later.

Friday, December 26.

Weather dull and foggy over central and eastern England, and dull and threatening at Valentia, fine or moderately so elsewhere. Rainy and dull in the W. later, but fair generally.

Temperature risen in the W. and N. and in a few other places locally, fallen generally. Slight frost central England. Readings ranging from 48° at Valentia to 28° at York. Temperature rising during day.

Wind easterly to south-easterly over France, southerly on our coasts and variable over Scandinavia; blowing strongly in the W. and reaching a fresh gale at Valentia. Moderate to fresh gale on our extreme western coasts all day.

Sea high at Valentia, rough in the W.

Barometer rising rapidly over Scandinavia and briskly over Denmark, falling elsewhere—briskly at Valentia. Readings highest over N. Germany, lowest off our W. coasts. Pressure giving way slowly all day.

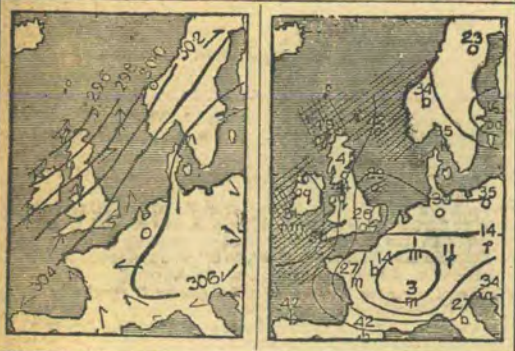
(*Continued over.*)

(*Continued.*)

Synoptic Weather Charts.—8 a.m.

BAROMETER AND WIND. | CLOUD, RAIN, SEA, AND TEMPERATURE.

Weather during the 24 hours succeeding the date of the Charts.



Saturday, December 27.

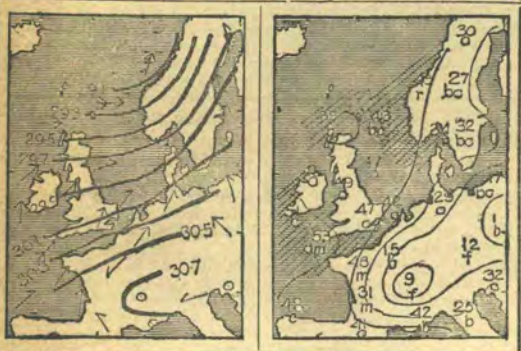
Weather still fine though misty at most of the continental stations, dull and gloomy over these Islands with rain in the extreme W. Clearing in the S.E. later, but rainy all over Ireland and Scotland.

Temperature fallen slightly over south-eastern England and rapidly over France, risen a few degrees elsewhere; ranging from 51° in W. Ireland to 25° at Cambridge. Becoming rapidly warmer in evening.

Wind easterly over France, southerly on all our coasts and over Norway; moderate in the S. and S.E., but blowing strongly in the W. and N. and reaching a fresh to strong gale in the N.W. Gale in N. and W. all day.

Sea rough in W. and N.

Barometer rising France, falling elsewhere, high over Baltic and central Europe, low off our N.W. coasts. Falling all day and large depression shown off N. of Scotland.



Sunday, December 28.

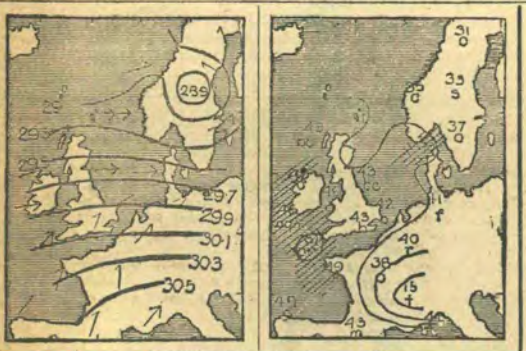
Weather fine over Scotland, dull elsewhere, with rain in Norway and mist over the Channel and W. France. Dull, squally, and rainy weather all day.

Temperature fallen Ireland and Scotland, risen elsewhere—very rapidly over central and eastern England. Readings ranging from 53° at Scilly to 38° at Wick. Maxima exceeding 50° generally and reaching 59° at Kingstown.

Wind westerly to south-westerly on nearly all our coasts, but southerly at Valentia as well as over Scandinavia. Blowing a gale at Scilly, in the Shetlands, and over Norway and Sweden; moderate to fresh elsewhere. Severe westerly to south-westerly gales in W. and N. at night.

Sea rough to high, except in the E.

Barometer rising briskly in France and Scotland, falling elsewhere. Yesterday's depression shown near Christiansund, but fresh and very deep disturbance approaching Scotland later.



Monday, December 29.

Weather fine at first over nearly the whole country, but dull and showery in W. and S.W. and over France. Rain general subsequently, and heavy in S. Ireland.

Temperature fallen these Islands, risen very fast over N. France, ranging from 51° at Scilly to 35° at Nairn. Maxima a little above 50° in the S., between 45° and 50° elsewhere.

Wind south-westerly to westerly on our coasts and over S. Scandinavia, and south-easterly over the Gulf of Bothnia. Moderate to fresh generally, but blowing a gale in the Shetlands and the S. of Norway and Sweden.

Sea rough in the W. generally and high at Scilly.

Barometer fallen fast to eastward of North Sea and slightly generally, but recovery commencing these Islands. Pressure recovering all day in W. but decreasing in E.

Explanation of Charts.—The two Charts for each day show the general condition of the weather over Western Europe at 8 a.m. In the left-hand Chart the height of the barometer is expressed by "isobars," the value of each line being given in figures. The prevalent winds are shown by arrows, which are drawn flying *with the wind*, the force being indicated thus: ⇛ = a heavy gale; ⇒ = a gale; → = a fresh to strong breeze; → = a light to moderate breeze; and ⊙ = a calm. In the right-hand Chart the weather is indicated as follows:—b = blue sky; c = detached clouds; o = overcast; m = misty (hazy); f = foggy; q = squally; r = rain; h = hail; s = snow; l = lightning; and t = thunder. The general distribution of temperature is shown by "isotherms," and the readings at certain places are given in figures. Diagonal lines = rough sea, the shading being proportional to the disturbance.

(Signed) ROBERT H. SCOTT,
Secretary.

METEOROLOGICAL OFFICE,
116, VICTORIA STREET, S.W.

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[48.—150.—1/80.]

QUARTERLY SUMMARY

OF

RAINFALL AND TEMPERATURE

IN THE

BRITISH ISLANDS.

THE Meteorological Council having ordered the preparation of the Quarterly and Annual Mean Values for Rainfall and Temperature from 1866 to the present time for each of the eleven Meteorological Districts in the British Islands, the accompanying Tables have been compiled from the best information available, and are now issued as a part of the volume of the Weekly Weather Report for 1879.

It is proposed, for the future, to reproduce at the close of each quarter and year the Table of Means for the corresponding period in previous years, with the values for the current quarter, or year, added at the bottom.

These Tables have been prepared in the following manner :—

1.—Rainfall.

The mean values for the Rainfall in the various districts were obtained from observations made at the following stations :—

For the years 1866 to 1877.

Districts.	Stations.
0. SCOTLAND, N.	Loch Broom. Helmsdale. Sandwick Manse.
1. SCOTLAND, E.	Inverness. Aberdeen. Ballater. Logierait. Stirling. Hawick.
2. ENGLAND, N.E.	N. Shields. York. Grimsby. Boston.
3. ENGLAND, E. (1866 to 1875)	Fakenham. Beccles. Witham. Bury St. Edmunds.
3. ENGLAND, E. (1876 & 1877.)	Yarmouth. Cambridge. Bury St. Edmunds.
4. MIDLAND COUNTIES	Leicester. Derby. Tenbury. Shiffnal. Cirencester. Banbury. Hitchin.
5. ENGLAND, S.	Bridport. Selborne. Maidstone. London (Camden Town).
6. SCOTLAND, W.	Dumfries. Ayr. Castle Toward.
7. ENGLAND, N.W. and N. WALES.	Llandudno. Manchester. Skipton.
8. ENGLAND, S.W. and S. WALES.	Barnstaple. Bodmin. Haverfordwest. Rhayader.
9. IRELAND, N.	Galway. (Doo Castle), Bunnin-nadden, Co. Sligo. Waringstown. Strabane.
10. IRELAND, S.	Cork. Waterford. Killaloe. Portarlington. Monkstown, Co. Dublin.

(The values were obtained mainly from Symons' Monthly Meteorological Magazine, supplemented by some of the values contained in the Reports of the Rainfall Committee of the British Association, 1868–1876.)

Q 407. 150.—3/80. Wt. 18320. E. & S.

When the returns from any station failed, the vacancies were supplied in one of the following manners :—

A. When the vacancy was of long duration, the values were taken from the records at some near station, having a *mean annual fall* about equal to that of the station for which the values were wanting.*

B. By ascertaining the variations in the amount of fall which had taken place at adjacent stations during the interruption in the returns, and interpolating a value for the vacant space.†

For the years 1878 and 1879 the values have been obtained from stations the returns from which are published in the Weekly Weather Report. These stations are now as follow, but were not always quite so numerous :—

Districts.	Stations.
0. SCOTLAND, N.	Sumburgh Head. Stornoway. Wick.
1. SCOTLAND, E.	Nairn. Aberdeen. Glenalmond. Leith.
2. ENGLAND, N.E.	Shields. Durham. York. Spurn Head. Kelstern (Lincolnshire).
3. ENGLAND, E.	Yarmouth. Cambridge. Audley End (Saffron Walden). Rothamsted.
4. MIDLAND COUNTIES	Nottingham. Loughborough. Leicester. Shrewsbury. Hereford. Cirencester. Oxford.
5. ENGLAND, S.	London. Marlborough. Strathfield Turgiss. Dover. Hastings (St. Leonard's). Hurst Castle.
6. SCOTLAND, W.	Laudale (Loch Sunart). Glasgow. Ardrossan. Silloth (Cumberland). Douglas (Isle of Man).
7. ENGLAND, N.W.	Stonyhurst. Manchester (Prestwich). Liverpool Observatory (Bidston). Holyhead.
8. ENGLAND, S.W.	Pembroke. Barnstaple. Falmouth. Plymouth. Prawle Point.
9. IRELAND, N.	Londonderry. Mullaghmore. Markree Castle. Brookeborough. Armagh. Donaghadee.
10. IRELAND, S.	Dublin. Kingstown. Parsonstown. Roche's Point. Valentia. Foynes.

A comparison has been made for the first quarter of the years 1878 and 1879, between the values obtained from the two sets of stations named above, and the following are the results, which may be considered as fairly typical for the entire series of tables :—

		1878.	1879.
		ins.	ins.
0. SCOTLAND, N.	Stations in 1st list	8·8	5·7
	„ „ 2nd „	4·0	5·3
1. SCOTLAND, E.	Stations in 1st list	4·6	5·8
	„ „ 2nd „	4·3	7·0
2. ENGLAND, N.E.	Stations in 1st list	4·0	4·4
	„ „ 2nd „	4·9	5·2
3. ENGLAND, E.	Stations in 1st list		Returns not available.
	„ „ 2nd „	4·6	6·3
4. MIDLAND COUNTIES	Stations in 1st list	4·0	6·2
	„ „ 2nd „	3·8	6·2
5. ENGLAND, S.	Stations in 1st list	4·9	8·3
	„ „ 2nd „	4·9	8·3
6. SCOTLAND, W.	Stations in 1st list	9·1	7·3
	„ „ 2nd „	11·0	8·5
7. ENGLAND, N.W.	Stations in 1st list	8·1	6·9
	„ „ 2nd „	7·3	6·7
8. ENGLAND, S.W.	Stations in 1st list	7·7	11·1
	„ „ 2nd „	6·2	11·2
9. ENGLAND, N.	Stations in 1st list	7·8	7·6
	„ „ 2nd „	8·2	6·7
10. IRELAND, S.	Stations in 1st list	7·0	9·9
	„ „ 2nd „	7·9	11·4

* This plan was adopted in the cases of Stirling, Logierait, Inverness, Loch Broom, and Ayr.
† This plan was followed in all cases where the omissions were trifling.

The comparison could not be made for a greater number of years owing to want of information from stations in the second list.

It will be seen that in the hilly districts, such as Scotland, N. and W., and England, N.W., the agreement is not so good as could be desired, but it is very doubtful whether any better agreement (for single years) would be arrived at, even if the stations had in each case been more numerous. In the more level countries the agreement is much better, and in some cases (viz., the Midland Counties and England, S.) it is quite remarkable.

2.—Temperature.

The Temperature values given in the table have been obtained from the following stations:—

For the years 1866 to 1877 the returns used were—

Districts.	Stations.
0. SCOTLAND, N.	Sandwick Manse. Stornoway. Dunrobin.
1. SCOTLAND, E.	Culloden. Aberdeen. Perth. Leith.
2. ENGLAND, N.E.	Bywell. N. Shields. Hull.
3. ENGLAND, E.	Royston. Holkham. Norwich. Wisbeach. Somerleyton.
4. MIDLAND COUNTIES	Derby. Nottingham. Cardington. Oxford.
5. ENGLAND, S.	Marlborough. Greenwich. Streatley. London (Camden Town). Weybridge. Strathfield Turgiss. Osborne. Bournemouth. Worthing.
6. SCOTLAND, W	Greenock. Cockermouth. Silloth. Carlisle.
7. ENGLAND, N.W. and N. WALES.	Stonyhurst. Bradford. Leeds. Eccles. Liverpool. Llandudno.
8. ENGLAND, S.W. and S. WALES.	Gloucester. Taunton. Barnstaple. Truro. Helston.
9. IRELAND, N.	1866 to 1873.: Belfast.; Milltown (Banbridge).; Armagh.†; Athlone.* 1866 to 1877.: Moville.; Milltown.; Armagh.; Donaghadee.
10. IRELAND, S.	1866 to 1873.: Dublin.*; Curragh Camp.; Buttevant.*; Cork.; Valentia.† 1874 to 1877.: Kingstown.; Parsonstown.; Cork.; Roche's Point.; Valentia.

(The values were obtained mainly from the returns published quarterly by the Registrar General and those published by the Scottish Meteorological Society, in their Quarterly Journal, and the reports of the Army Medical Department, besides the records of the two Irish observatories, Valentia and Armagh. The returns for Cork were furnished by R. Caulfield, Esq., LL.D.)

In cases where the returns were incomplete the vacancies have been supplied by plotting for the particular year and quarter the mean values for adjacent stations; and then supplying by interpolation the probable value for the station requiring it.

The values for the years 1878 and 1879 were obtained from the returns received from the stations named in the Weekly Weather Report, a list of which has already been given on p. 2.

A rough comparison was made for the years 1878 and 1879 between the values obtained from these two sets of stations, but the difference between them was so trifling that it was not thought worth quoting.

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* Did not commence till January 1867.

† Did not commence till January 1869.

By Order,
ROBERT H. SCOTT,
Secretary.

SUMMARY OF RAINFALL AND TEMPERATURE for the FIRST QUARTER of the YEAR (January 1st to March 31st).

	YEARS.	PRINCIPAL WHEAT-PRODUCING DISTRICTS.							PRINCIPAL GRAZING, &c. DISTRICTS.						BRITISH ISLANDS GENERALLY.
		0. SCOTLAND, N.	1. SCOTLAND, E.	2. ENGLAND, N.E.	3. ENGLAND, E.	4. MIDLAND COUNTIES.	5. ENGLAND, S.	MEAN FOR ALL THE WHEAT-PRODUCING DISTRICTS.	6. SCOTLAND, W.	7. ENGLAND, N.W.	8. ENGLAND, S.W.	9. IRELAND, N.	10. IRELAND, S.	MEAN FOR ALL THE GRAZING, &c. DISTRICTS.	
RAINFALL (in inches).		ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
	1866	14·8	11·3	5·8	7·4	7·1	11·4	9·6	15·4	13·4	16·9	13·7	12·0	14·3	11·7
	1867	10·7	9·5	5·4	5·7	8·1	8·8	8·0	9·9	11·1	15·2	11·8	10·7	11·7	9·7
	1868	19·1	11·7	4·9	5·4	6·7	7·5	9·2	17·6	13·3	11·9	13·0	10·5	13·3	11·1
	1869	11·8	8·9	6·2	6·2	7·7	9·0	8·3	11·4	12·2	14·0	12·1	12·1	12·4	10·1
	1870	6·4	6·7	4·8	3·9	5·1	6·0	5·5	8·8	9·0	10·7	8·6	9·7	9·4	7·2
	1871	9·4	6·9	3·8	3·9	4·8	6·1	5·8	11·7	8·7	10·0	10·7	9·4	10·1	7·8
	1872	8·2	11·2	7·8	6·1	9·8	10·1	8·9	15·2	14·0	19·5	12·7	13·1	14·9	11·6
	1873	7·9	7·2	5·3	5·4	7·1	8·4	6·9	10·0	9·6	14·1	8·8	11·9	10·9	8·7
	1874	11·5	6·5	3·5	3·1	5·7	4·4	5·8	8·6	11·0	12·5	8·4	7·7	9·6	7·5
	1875	8·4	7·0	3·9	3·7	5·8	6·7	5·9	9·8	8·7	12·6	7·1	10·2	9·7	7·6
	Means for 10 years, 1866 to 1875	10·8	8·7	5·1	5·1	6·8	7·8	7·4	11·8	11·1	13·7	10·7	10·7	11·6	9·3
	1876	13·4	9·5	6·3	6·7	8·2	7·5	8·6	12·1	12·0	10·9	10·0	10·0	11·0	9·7
	1877	11·9	9·8	7·1	7·6	8·3	10·7	9·2	14·2	15·4	14·2	13·4	11·4	13·7	11·3
	1878	9·3	4·3	4·9	4·6	3·8	4·9	5·3	11·0	7·3	6·2	8·2	7·9	8·1	6·6
	1879	5·5	7·0	5·2	6·3	6·2	8·3	6·4	8·5	6·7	11·2	6·7	11·4	8·9	7·5
	Means for 14 years, 1866 to 1879	10·6	8·4	5·4	5·4	6·7	7·8	7·4	11·7	10·9	12·8	10·4	10·6	11·3	9·1
TEMPERATURE (in degrees Fahrenheit).		°	°	°	°	°	°	°	°	°	°	°	°	°	°
	1866	38·3	38·8	39·1	40·9	40·4	41·9	39·9	40·0	40·6	43·4	39·9	40·3	40·8	40·3
	1867	36·9	37·2	36·8	38·6	38·2	39·2	37·8	37·7	38·6	41·4	38·1	39·9	39·1	38·4
	1868	40·7	41·7	41·1	41·4	41·9	42·0	41·5	42·3	42·4	44·4	42·1	44·3	43·1	42·2
	1869	40·0	40·3	40·6	41·1	41·2	42·0	40·9	42·0	42·1	45·1	42·9	44·6	43·3	42·0
	1870	37·9	37·4	37·1	37·4	38·0	38·2	37·7	38·6	38·7	41·3	39·8	41·6	40·0	38·7
	1871	40·0	39·7	38·8	39·2	40·1	40·3	39·7	40·0	40·0	43·3	41·6	43·4	41·7	40·6
	1872	40·9	40·9	41·3	42·3	42·9	43·7	42·0	42·9	43·3	46·1	42·4	44·5	43·8	42·8
	1873	39·0	38·4	38·5	38·9	39·1	39·9	39·0	39·2	39·7	42·6	39·8	41·0	40·5	39·6
	1874	41·7	41·8	41·3	40·4	41·0	42·0	41·4	42·3	41·8	45·0	42·8	45·2	43·4	42·3
	1875	39·5	39·0	38·8	38·6	39·2	40·2	39·2	39·8	40·2	42·9	41·6	44·6	41·8	40·4
	Means for 10 years, 1866 to 1875	39·5	39·5	39·3	39·9	40·2	40·9	39·9	40·5	40·7	43·6	41·0	42·9	41·8	40·7
	1876	38·7	38·3	39·2	39·0	38·9	40·0	39·0	39·5	39·8	42·4	40·1	43·3	41·0	39·9
	1877	38·4	38·8	40·4	41·7	41·8	43·1	40·7	40·5	41·8	44·9	41·4	45·2	42·8	41·6
	1878	39·4	40·1	40·8	40·6	41·8	41·7	40·7	41·9	42·2	44·2	42·5	45·1	43·2	41·8
	1879	35·8	34·2	35·9	36·5	36·4	37·8	36·1	36·5	36·8	40·8	38·0	40·5	38·5	37·2
	Means for 14 years, 1866 to 1879	39·1	39·0	39·3	39·8	40·1	40·9	39·7	39·9	41·2	43·1	40·9	43·1	41·6	40·6

TABLE showing, for the WHEAT and GRAZING DISTRICTS, and for the COUNTRY generally, the DATES of the DRIEST and WETTEST, and the COLDEST and WARMEST corresponding Quarters for the 14 years, 1866 to 1879.

—	WHEAT DISTRICTS.	GRAZING, &c. DISTRICTS.	GENERALLY.
Rain.	**Rain.**	**Rain.**	**Rain.**
Driest - - -	1878 - - inches. 5·3	1878 - - inches. 8·1	1878 - - inches. 6·6
Wettest - - -	1866 - - 9·6	1872 - - 14·9	1866 - - 11·7
Temperature.	**Temperature.**	**Temperature.**	**Temperature.**
Coldest - - -	1879 - - 36°·1	1879 - - 38°·5	1879 - - 37°·2
Warmest - - -	1872 - - 42°·0	1872 - - 43°·8	1872 - - 42°·8

SUMMARY OF RAINFALL AND TEMPERATURE for the SECOND QUARTER of the YEAR (April 1st to June 30th).

	YEARS.	PRINCIPAL WHEAT-PRODUCING DISTRICTS. 0. SCOTLAND, N.	1. SCOTLAND, E.	2. ENGLAND, N.E.	3. ENGLAND, E.	4. MIDLAND COUNTIES.	5. ENGLAND, S.	MEAN FOR ALL THE WHEAT-PRODUCING DISTRICTS.	PRINCIPAL GRAZING, &c. DISTRICTS. 6. SCOTLAND, W.	7. ENGLAND, N.W.	8. ENGLAND, S.W	9. IRELAND, N.	10. IRELAND, S.	MEAN FOR ALL THE GRAZING, &c. DISTRICTS.	BRITISH ISLANDS GENERALLY.
RAINFALL (in inches).		ins.	ins.	ins.	ns.	ins.	ins.	ins.	ins.	ins	in	ins.	ins.	ins.	ins.
	1866	6·2	4·8	5·2	6·0	6·3	6·7	5·9	5·1	6·3	6·5	6·7	8·2	6·6	6·2
	1867	10·6	8·0	6·8	6·2	6·7	5·8	7·4	10·5	8·3	10·0	10·0	9·3	9·6	8·4
	1868	10·9	6·1	3·7	3·2	3·3	4·1	5·2	7·7	4·4	5·9	6·6	6·3	6·2	5·7
	1869	6·7	5·3	7·5	5·0	7·5	6·6	6·4	4·8	7·6	8·2	7·7	7·8	7·	6·8
	1870	9·5	4·1	4·3	2·3	2·5	2·4	4·2	7·4	5·7	4·2	6·4	4·6	5·7	4·9
	1871	4·3	6·1	7·5	7·4	7·5	7·7	6·8	8·3	7·7	8·4	7·5	7·7	7·9	7·3
	1872	11·4	10·4	7·4	6·6	8·6	8·5	8·8	11·2	12·0	10·9	9·8	7·6	10·3	9·5
	1873	7·9	5·9	4·8	4·7	5·6	4·3	5·5	5·1	4·7	5·9	6·3	5·1	5·4	5·5
	1874	10·0	4·5	3·4	3·9	3·9	5·3	5·2	5·5	5·0	4·5	6·8	4·2	5·2	5·2
	1875	8·7	5·5	4·2	4·9	6·4	6·0	6·0	6·5	7·6	9·8	7·0	6·5	7·5	6·6
	Means for 10 years, 1866 to 1875	8·6	6·1	5·5	5·0	5·8	5·7	6·1	7·2	6·9	7·4	7·5	6·7	7·1	6·6
	1876	8·4	6·1	6·2	4·9	5·5	4·9	6·0	6·4	7·0	5·5	5·6	5·0	5·9	6·0
	1877	10·1	8·8	6·7	5·6	6·8	6·2	7·4	9·5	8·4	11·2	8·5	10·9	9·7	8·4
	1878	3·7	6·3	7·7	8·2	9·2	8·5	7·3	8·8	8·2	11·7	9·0	13·8	10·3	8·6
	1879	4·5	8·5	8·7	10·2	10·1	10·3	8·7	9·9	8·4	10·4	10·1	11·7	10·1	9·3
	Means for 14 years, 1866 to 1879	8·1	6·5	6·0	5·7	6·4	6·2	6·5	7·6	7·2	8·1	7·7	7·8	7·7	7·0
TEMPERATURE (in degrees Fahrenheit).		°	°	°	°	°	°	°	°	°	°	°	°	°	°
	1866	48·2	48·1	48·0	52·2	51·7	52·9	50·2	50·9	50·6	53·0	51·9	51·4	51·6	50·8
	1867	47·2	49·9	48·5	52·7	52·2	52·8	50·6	51·1	51·6	53·6	53·1	52·9	52·5	51·4
	1868	49·7	52·3	52·1	55·1	55·7	54·8	53·3	52·3	53·5	55·0	52·8	54·6	53·6	53·4
	1869	47·7	49·4	49·2	50·9	51·6	51·7	50·1	50·1	50·3	53·5	51·3	52·6	51·6	50·8
	1870	49·5	52·5	51·4	52·8	54·4	53·5	52·4	51·9	52·8	54·3	53·2	53·5	53·1	52·7
	1871	47·2	48·4	47·9	49·5	51·7	51·2	49·3	50·8	50·7	53·7	52·4	53·9	52·3	50·7
	1872	48·2	49·7	49·7	52·0	51·3	51·9	50·6	50·3	51·0	51·9	50·5	51·6	51·1	50·7
	1873	47·9	49·8	49·1	49·8	51·6	51·7	50·0	51·7	51·3	52·5	51·9	53·2	52·1	51·0
	1874	48·4	49·6	49·9	51·3	52·4	52·7	50·7	51·1	51·4	54·0	51·5	54·3	52·5	51·5
	1875	49·3	51·4	51·2	52·4	52·8	52·9	51·7	51·7	52·0	53·1	51·9	53·3	52·4	52·0
	Means for 14 years, 1866 to 1875	48·3	50·1	49·7	51·9	52·5	52·6	50·9	51·2	51·5	53·5	52·1	53·1	52·3	51·5
	1876	48·2	49·7	49·8	51·1	51·3	51·3	50·2	50·3	50·5	52·1	49·8	52·2	51·0	50·6
	1877	46·6	47·5	48·4	50·8	51·1	51·8	49·4	49·1	49·5	52·3	49·3	52·2	50·5	49·9
	1878	48·8	50·6	51·7	53·8	54·3	54·8	52·3	52·5	53·5	53·5	52·6	53·7	53·2	52·7
	1879	45·0	46·8	47·5	48·8	49·0	49·8	47·8	48·4	48·6	50·0	48·4	50·0	49·1	48·4
	Means for 14 years, 1866 to 1879	48·0	49·7	49·6	51·7	52·2	52·4	50·6	50·9	51·2	53·0	51·5	52·8	51·9	51·2

TABLE showing, for the WHEAT and GRAZING DISTRICTS, and for the COUNTRY generally, the DATES of the DRIEST and WETTEST, and the COLDEST and WARMEST corresponding Quarters for the 14 years, 1866 to 1879.

—	WHEAT DISTRICTS.	GRAZING, &c. DISTRICTS.	GENERALLY.
Rain.	**Rain.** inches.	**Rain.** inches.	**Rain.** inches.
Driest	1870 - - - 4·2	1874 - - - 5·2	1870 - - - 4·9
Wettest	1872 - - - 8·8	1872 and 1878 - 10·3	1872 - - - 9·5
Temperature.	**Temperature.**	**Temperature.**	**Temperature.**
Coldest	1879 - - - 47°·8	1879 - - - 49°·1	1879 - - - 48°·4
Warmest	1868 - - - 53°·3	1868 - - - 53°·6	1868 - - - 53°·4

SUMMARY OF RAINFALL AND TEMPERATURE for the THIRD QUARTER of the YEAR (July 1st to September 30th).

	YEARS.	PRINCIPAL WHEAT-PRODUCING DISTRICTS.							PRINCIPAL GRAZING, &c. DISTRICTS.						BRITISH ISLANDS GENERALLY.
		0. SCOTLAND, N.	1. SCOTLAND, E.	2. ENGLAND, N.E.	3. ENGLAND, E.	4. MIDLAND COUNTIES.	5. ENGLAND, S.	MEAN FOR ALL THE WHEAT-PRODUCING DISTRICTS.	6. SCOTLAND, W.	7. ENGLAND, N.W.	8. ENGLAND, S.W.	9. IRELAND, N.	10. IRELAND, S.	MEAN FOR ALL THE GRAZING, &c. DISTRICTS.	
RAINFALL (in inches).		ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
	1866	11·8	10·6	9·3	7·9	11·7	9·7	10·2	15·1	16·1	15·2	12·0	8·9	13·4	11·7
	1867	10·0	10·1	7·1	7·1	7·4	8·6	8·4	12·9	10·4	8·7	11·8	8·8	10·5	9·4
	1868	9·7	10·4	6·0	4·2	7·1	7·2	7·4	9·1	6·7	9·5	8·1	11·0	8·9	8·1
	1869	12·8	7·0	5·8	5·6	6·4	6·0	7·3	10·4	11·5	9·9	9·4	8·5	9·9	8·5
	1870	8·6	5·8	3·5	5·8	4·5	4·8	5·5	6·8	5·0	7·0	7·6	5·7	6·4	5·9
	1871	13·0	8·7	9·7	7·5	10·8	10·3	10·0	9·8	11·8	14·2	11·1	10·5	11·5	10·7
	1872	12·1	12·5	10·4	9·8	9·4	6·6	10·1	16·1	15·8	13·1	14·7	11·2	14·2	12·0
	1873	13·7	11·8	7·2	6·4	6·8	7·3	8·9	15·7	11·8	14·0	14·2	11·8	13·5	11·0
	1874	15·5	11·6	5·8	5·1	7·1	6·3	8·6	13·4	12·6	13·8	11·8	10·1	12·3	10·3
	1875	11·2	8·9	9·1	8·6	11·5	9·4	9·8	11·2	12·7	15·3	9·2	10·6	11·8	10·7
	Means for 10 years, 1866 to 1875	11·8	9·7	7·4	6·8	8·3	7·6	8·6	12·1	11·4	12·1	11·0	9·7	11·3	9·8
	1876	8·9	7·4	8·0	8·1	9·0	7·9	8·2	10·3	11·2	13·8	10·0	9·6	11·0	9·5
	1877	10·8	11·3	10·1	8·1	10·4	7·6	9·7	12·6	15·4	14·5	12·0	10·4	13·0	11·2
	1878	8·0	8·2	8·5	6·9	8·9	7·6	8·0	10·2	11·0	9·5	8·2	10·8	9·9	8·9
	1879	9·8	10·0	8·8	12·2	11·3	11·2	10·6	15·9	13·9	13·3	15·6	12·5	14·2	12·2
	Means for 14 years, 1866 to 1879	11·1	9·7	7·8	7·4	8·7	7·9	8·8	12·1	11·9	12·3	11·1	10·0	11·5	10·0
TEMPERATURE (in degrees Fahrenheit).		°	°	°	°	°	°	°	°	°	°	°	°	°	°
	1866	53·2	55·4	55·4	57·6	56·8	58·1	56·1	56·2	56·8	58·4	56·0	57·2	56·9	56·5
	1867	53·7	56·0	55·9	58·8	58·5	59·2	57·0	57·2	58·2	60·0	58·5	59·4	58·7	57·8
	1868	55·0	58·5	58·8	62·5	62·4	62·4	59·9	59·5	61·2	63·6	59·1	60·8	60·8	60·3
	1869	54·5	57·4	57·6	60·2	60·5	60·3	58·4	58·2	59·1	61·4	59·5	59·8	59·6	59·0
	1870	55·6	58·1	57·2	59·6	60·5	60·3	58·6	58·5	59·5	61·7	59·6	60·3	59·9	59·2
	1871	55·1	57·4	57·5	59·9	59·5	60·1	58·3	57·3	58·3	60·6	57·2	58·0	58·3	58·3
	1872	54·0	55·9	57·1	59·7	60·1	60·3	57·9	57·7	59·1	60·7	57·9	59·3	58·9	58·3
	1873	54·1	56·4	57·3	59·1	58·7	59·4	57·5	57·4	57·8	59·5	56·6	57·9	57·8	57·7
	1874	54·4	56·7	57·9	60·2	60·3	60·2	58·3	57·8	58·8	60·6	56·9	59·0	58·6	58·4
	1875	54·8	57·0	57·8	59·7	59·6	60·2	58·2	58·4	58·7	60·6	57·5	60·0	59·0	58·6
	Means for 10 years, 1866 to 1875	54·4	56·9	57·3	59·7	59·7	60·1	58·0	57·8	58·8	60·7	57·9	59·2	58·9	58·4
	1876	54·3	56·3	57·7	60·4	60·7	61·1	58·4	57·6	58·8	61·0	56·6	59·4	58·7	58·5
	1877	52·7	55·0	55·5	57·9	57·7	58·2	56·2	55·3	56·0	58·3	55·1	57·3	56·4	56·3
	1878	55·2	58·5	59·1	60·4	60·2	61·6	59·2	59·2	59·5	61·3	58·8	60·7	59·9	59·5
	1879	52·4	54·2	56·2	58·1	57·8	58·7	56·2	55·2	56·2	57·5	54·8	57·5	56·2	56·2
	Means for 14 years, 1866 to 1879	54·2	56·6	57·2	59·6	59·5	60·0	57·9	57·5	58·4	60·4	57·4	59·0	58·5	58·2

TABLE showing, for the WHEAT and GRAZING DISTRICTS, and for the COUNTRY generally, the DATES of the DRIEST and WETTEST, and the COLDEST and WARMEST corresponding Quarters for the 14 years, 1866 to 1879.

—	WHEAT DISTRICTS.	GRAZING, &c. DISTRICTS.	GENERALLY.
Rain.	**Rain.**	**Rain.**	**Rain.**
Driest - - -	1870 - - - inches. 5·5	1870 - - - inches. 6·4	1870 - - - inches. 5·9
Wettest - - -	1879 - - - 10·6	1872 and 1879 - 14·2	1879 - - - 12·2
Temperature.	**Temperature.**	**Temperature.**	**Temperature.**
Coldest - - -	1866 - - - 56°·1	1879 - - - 56°·2	1879 - - - 56°·2
Warmest - - -	1868 - - - 59°·9	1868 - - - 60°·8	1868 - - - 60°·3

SUMMARY OF RAINFALL AND TEMPERATURE for the FOURTH QUARTER of the YEAR (October 1st to December 31st).

	YEARS.	PRINCIPAL WHEAT-PRODUCING DISTRICTS.							PRINCIPAL GRAZING, &c. DISTRICTS.						BRITISH ISLANDS GENERALLY.
		0. SCOTLAND, N.	1. SCOTLAND, E.	2. ENGLAND, N.E.	3. ENGLAND, E.	4. MIDLAND COUNTIES.	5. ENGLAND, S.	MEAN FOR ALL THE WHEAT-PRODUCING DISTRICTS.	6. SCOTLAND, W.	7. ENGLAND, N.W.	8. ENGLAND, S.W.	9. IRELAND, N.	10. IRELAND, S.	MEAN FOR ALL THE GRAZING, &c. DISTRICTS.	
RAINFALL (in inches).		ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
	1866	20·6	9·0	6·0	5·9	6·7	6·3	9·1	14·4	15·3	12·4	11·9	9·2	12·6	10·7
	1867	16·8	5·7	4·8	5·7	5·5	5·8	7·4	10·4	10·3	12·1	9·6	7·5	10·0	8·6
	1868	19·0	10·3	9·5	7·9	9·7	11·4	11·3	15·1	18·5	18·3	14·0	14·3	16·0	13·5
	1869	19·8	9·8	7·9	9·1	7·7	8·5	10·5	14·0	13·6	14·3	13·1	9·5	12·9	11·6
	1870	16·0	9·3	10·5	8·4	8·6	9·5	10·4	10·6	16·0	15·9	14·6	12·2	13·9	12·0
	1871	15·1	7·3	5·4	4·3	4·2	4·6	6·8	10·7	10·7	12·4	7·6	9·4	10·2	8·3
	1872	18·0	15·0	11·6	10·6	12·0	16·5	14·0	16·3	17·4	25·1	16·8	17·6	18·6	16·1
	1873	21·2	9·6	3·5	4·6	4·6	6·5	8·3	11·7	10·6	9·4	7·9	7·7	9·5	8·8
	1874	17·8	9·2	8·0	7·0	7·4	10·6	10·0	14·4	15·0	16·0	13·0	12·7	14·2	11·9
	1875	13·7	11·1	10·1	9·6	11·4	11·2	11·2	12·5	12·7	18·5	10·1	13·1	13·4	12·2
	Means for 10 years, 1866 to 1875	17·8	9·6	7·7	7·3	7·8	9·1	9·9	13·0	14·0	15·4	11·9	11·3	13·1	11·4
	1876	13·7	13·2	10·5	7·5	11·7	13·4	11·7	16·0	14·1	19·1	14·4	17·6	16·2	13·7
	1877	23·1	11·3	6·4	6·4	7·4	10·6	10·9	18·1	17·8	17·2	14·3	14·0	16·3	13·3
	1878	11·1	8·4	10·3	9·7	8·0	8·5	9·3	11·1	9·0	13·6	11·9	8·2	10·8	10·0
	1879	8·6	4·8	3·6	3·4	2·7	2·6	4·3	6·2	5·5	4·5	5·0	4·3	5·1	4·7
	Means for 14 years, 1866 to 1879	16·8	9·6	7·7	7·2	7·7	9·0	9·7	13·0	13·3	14·9	11·7	11·2	12·8	11·1
TEMPERATURE (in degrees Fahrenheit).		°	°	°	°	°	°	°	°	°	°	°	°	°	°
	1866	43·6	44·2	45·1	46·1	45·7	46·8	45·3	46·0	46·2	50·3	45·4	46·9	47·0	46·0
	1867	43·9	42·9	42·3	43·0	42·6	43·2	43·0	43·4	42·9	45·8	44·2	44·9	44·2	43·6
	1868	42·0	42·0	43·1	44·8	44·3	45·5	43·6	43·6	44·2	48·1	44·0	45·5	45·1	44·3
	1869	40·9	41·5	41·8	42·7	42·9	43·7	42·3	42·5	43·9	46·6	44·7	45·5	44·6	43·3
	1870	40·3	40·0	40·3	41·6	41·3	41·9	40·9	40·5	41·6	44·4	41·5	43·2	42·2	41·5
	1871	42·2	42·1	42·3	41·5	41·7	41·8	41·9	42·4	43·0	45·3	43·2	44·7	43·7	42·7
	1872	42·4	42·0	43·3	44·4	44·2	45·4	43·6	43·6	44·4	47·3	42·8	44·1	44·4	44·0
	1873	43·4	42·9	44·2	43·9	43·6	44·5	43·8	44·2	44·7	46·9	44·3	46·3	45·3	44·4
	1874	41·4	39·9	40·8	41·8	41·7	43·0	41·4	40·5	42·3	46·0	42·8	45·7	43·5	42·4
	1875	42·7	42·1	43·0	42·7	43·0	43·5	42·8	42·8	43·6	45·9	43·5	46·0	44·4	43·5
	Means for 10 years, 1866 to 1875	42·3	42·0	42·6	43·3	43·1	43·9	42·9	43·0	43·7	46·7	43·6	45·3	44·5	43·6
	1876	44·0	43·4	45·2	46·2	44·8	47·2	45·1	44·6	46·1	49·0	45·7	48·1	46·7	45·8
	1877	42·9	43·3	43·6	44·4	44·1	44·8	43·9	44·5	45·3	49·2	44·4	47·4	46·2	44·9
	1878	40·5	39·7	39·8	40·8	40·7	42·3	40·6	40·9	41·5	44·5	42·1	42·8	42·4	41·4
	1879	41·8	41·0	40·3	39·7	39·8	41·2	40·6	42·2	42·0	45·3	43·0	45·0	43·5	41·8
	Means for 14 years, 1866 to 1879	42·3	41·9	42·5	43·1	42·9	43·9	42·8	43·0	43·7	46·8	43·7	45·4	44·5	43·6

TABLE showing, for the WHEAT and GRAZING DISTRICTS, and for the COUNTRY generally, the DATES of the DRIEST and WETTEST, and the COLDEST and WARMEST corresponding Quarters for the 14 years, 1866 to 1879.

—	WHEAT DISTRICTS.	GRAZING, &c. DISTRICTS.	GENERALLY.
Rain.	**Rain.** inches.	**Rain.** inches.	**Rain.** inches.
Driest	1879 - 4·3	1879 - 5·1	1879 - 4·7
Wettest	1872 - 14·0	1872 - 18·6	1872 - 16·1
Temperature.	**Temperature.**	**Temperature.**	**Temperature.**
Coldest	1878 and 1879 - 40°·6	1870 - 42°·2	1878 - 41°·4
Warmest	1866 - 45°·3	1866 - 47°·0	1866 - 46°·0

SUMMARY OF RAINFALL AND TEMPERATURE FOR THE WHOLE YEAR.

	YEARS.	PRINCIPAL WHEAT-PRODUCING DISTRICTS.							PRINCIPAL GRAZING, &c. DISTRICTS.						BRITISH ISLANDS GENERALLY.
		0. SCOTLAND, N.	1. SCOTLAND, E.	2. ENGLAND, N.E.	3. ENGLAND, E.	4. MIDLAND COUNTIES.	5. ENGLAND, S.	MEAN FOR ALL THE WHEAT-PRODUCING DISTRICTS.	6. SCOTLAND, W.	7. ENGLAND, N.W.	8. ENGLAND, S.W.	9. IRELAND, N.	10. IRELAND, S.	MEAN FOR ALL THE GRAZING, &c. DISTRICTS.	
RAINFALL (in inches).		ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.	ins.
	1866	53·4	35·7	26·3	27·2	31·8	34·1	34·8	50·0	51·1	51·0	44·3	38·3	46·9	40·3
	1867	48·1	33·3	24·1	24·7	27·7	29·0	31·2	43·7	40·1	46·0	43·2	36·3	41·9	36·0
	1868	58·7	38·5	24·1	20·7	26·8	30·2	33·2	49·5	42·9	45·6	41·7	42·1	44·4	38·3
	1869	51·1	31·0	27·4	25·9	29·3	30·1	32·5	40·6	44·9	46·4	42·3	37·9	42·4	37·0
	1870	40·5	25·9	23·1	20·4	20·7	22·7	25·6	33·6	35·7	37·8	37·2	32·2	35·3	30·0
	1871	41·8	29·0	26·4	23·1	27·3	28·7	29·4	40·5	38·9	45·0	36·9	37·0	39·7	34·1
	1872	49·7	49·1	37·2	33·1	39·8	41·7	41·8	58·8	59·2	68·6	54·0	49·5	58·0	49·2
	1873	50·7	34·5	20·8	21·1	24·1	26·5	29·6	42·5	36·7	43·4	37·2	36·5	39·3	34·0
	1874	54·8	31·8	20·7	19·1	24·1	26·6	29·5	41·9	43·6	46·8	40·0	34·7	41·4	34·9
	1875	42·0	32·5	27·3	26·8	35·1	33·3	32·9	40·0	41·7	56·2	33·4	40·4	42·3	37·2
	Means for 10 years, 1866 to 1875	49·1	34·1	25·7	24·2	28·7	30·3	32·0	44·1	43·5	48·7	41·0	38·5	43·2	37·1
	1876	44·4	36·2	31·0	27·2	34·4	33·7	34·5	44·8	44·3	49·3	40·0	42·2	44·1	38·9
	1877	55·9	41·2	30·3	27·7	32·9	35·1	37·2	54·4	57·0	57·1	48·2	46·7	52·7	44·2
	1878	32·1	27·2	31·4	29·4	29·9	29·5	29·9	41·1	35·5	41·0	37·3	40·7	39·1	34·1
	1879	28·4	30·3	26·3	32·1	30·3	32·4	30·0	40·5	34·5	39·4	37·4	39·9	38·3	33·8
	Means for 14 years, 1866 to 1879	46·5	34·0	26·9	25·6	29·6	31·0	32·3	44·4	43·3	48·1	40·9	39·6	43·3	37·3
TEMPERATURE (in degrees Fahrenheit).		°	°	°	°	°	°	°	°	°	°	°	°	°	°
	1866	45·8	46·6	46·9	49·2	48·7	49·9	47·9	48·3	48·6	51·3	48·3	49·0	49·1	48·4
	1867	45·4	46·5	45·9	48·3	47·9	48·6	47·1	47·4	47·8	50·2	48·5	49·3	48·6	47·8
	1868	46·9	48·6	48·8	51·0	51·1	51·2	49·6	49·4	50·3	52·8	49·5	51·3	50·7	50·1
	1869	45·8	47·2	47·3	48·7	49·1	49·4	47·9	48·2	48·9	51·7	49·6	50·6	49·8	48·8
	1870	45·8	47·0	46·5	47·9	48·6	48·5	47·4	47·4	48·2	50·4	48·5	49·7	48·8	48·0
	1871	46·1	46·9	46·6	47·5	48·3	48·4	47·3	47·6	48·0	50·7	48·6	50·0	49·0	48·1
	1872	46·4	47·1	47·9	49·6	49·6	50·3	48·5	48·6	49·5	51·5	48·4	49·9	49·6	49·0
	1873	46·1	46·9	47·3	47·9	48·3	48·9	47·6	48·1	48·4	50·4	48·2	49·6	48·9	48·2
	1874	46·5	47·0	47·5	48·4	48·9	49·5	48·0	47·9	48·6	51·4	48·5	51·1	49·5	48·7
	1875	46·6	47·4	47·7	48·4	48·7	49·2	48·0	48·2	48 6	50·6	48·6	51·0	49·4	48·6
	Means for 10 years, 1866 to 1875	46·1	47·1	47·2	48·7	48·9	49·4	47·9	48·1	48·7	51·1	48·7	50·2	49·4	48·6
	1876	46·3	46·9	48·0	49·2	48·9	49·9	48·2	48·0	48·8	51·1	48·1	50·8	49·4	48·7
	1877	45·2	46·2	47·0	48·7	48·7	49·5	47·6	47·4	48·2	51·2	47·6	50·5	49·0	48·2
	1878	46·0	47·2	47·9	48·9	49·3	50·1	48·2	48·6	49·2	50·9	49·0	50·6	49·7	48·9
	1879	43·8	44·1	45·0	45·8	45·8	46·9	45·2	45·6	45·9	48·4	46·1	48·3	46·9	46·0
	Means for 14 years, 1866 to 1879	45·9	46·8	47·2	48·5	48·7	49·3	47·8	47·9	48·5	50·9	48·4	50·1	49·2	48·4

TABLE showing, for the WHEAT and GRAZING DISTRICTS, and for the COUNTRY generally, the DATES of the DRIEST and WETTEST, and the COLDEST and WARMEST corresponding years for the 14 years, 1866–1879.

——	WHEAT DISTRICTS.	GRAZING, &c. DISTRICTS.	GENERALLY.
Rain.	**Rain.** inches.	**Rain.** inches.	**Rain.** inches.
Driest	1870 - - 25·6	1870 - - 35·3	1870 - - 30·0
Wettest	1872 - - 41·8	1872 - - 58·0	1872 - - 49·2
Temperature.	**Temperature.**	**Temperature.**	**Temperature.**
Coldest	1879 - - 45°·2	1879 - - 46°·9	1879 - - 46°·0
Warmest	1868 - - 49°·6	1868 - - 50°·7	1868 - - 50°·1